THE TREASURY BILLS MARKET
IN MALAYSIA

by

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P R E F A C E

The Treasury Bills market is a post - World War II development in the Malaysian economy. It was relatively unknown and its growth was slow and irregular during the period prior to 1959. It has only developed rapidly over the last decade and thus its significance to this country is only recently realised.

The importance of the Treasury Bills market lies in its dual role - more important, as a source of funds for the government, and recently and equally important, its role towards ultimately facilitating central banking operations in this country.

Objective of Study

It is the main objective of this study to investigate, and to reveal, more about Treasury Bills as a feature of the Federal Government debt - its background, characteristics, and market - and the significance it bears on the Malaysian economy. The development in the Treasury Bills market is also investigated. Hence, it is the prime aim of this study to throw some light on this feature of the Malaysian economy that has hitherto remained virtually untouched by writers.

Scope of Study

Treasury Bills are issued only by the Federal Government upon which this study is based. There is no such similar issue by the State Treasuries. This study covers the whole of Malaysia. As for the time factor, the study is mainly focussed on the development that occurred over the past one decade since the formation of Bank Negara in 1959. However, it would be an incomplete study if no mention is made of the growth of the market since it was statutorily begun in 1945. Thus, this study also incorporates an attempt to study the issue of Treasury Bills prior to 1959.

Limitations

In making a study yet untouched by other researchers, the investigator faced the problem of lack of secondary materials. No single literature has yet been written specifically on Treasury Bills in Malaysia. Against this deficiency, the investigator has to base his study largely from primary sources - unpublished materials, reports, and interviews.

Being a "pioneer" in this field, this study as such cannot be comprehensive or complete. However, it is hoped that it will set the path toward illuminating this feature of the economy which is of increasing significance to the country.

Nothing too has been published on the broader concept of the money market in Malaysia since Bank Negara was formed in 1959. Here, the investigator faced a second difficulty. The Treasury Bills market is a part of the money market; but whether it is playing a dominant role in the money market, in terms of the total money-volume it handles, is difficult to conclude when the amount handled by the money market as a totality is still unknown. Thus it is difficult to conclude definitively whether the Treasury Bills market is wide or narrow when its significance in the money market still remains unknown. Nevertheless tentative conclusions on the development of the Treasury Bills market are drawn based on what this study has uncovered.

Finally, there is the limitation with respect to statistics. The data that are presented are those which the investigator is able to obtain and compile. Where data are not available, the "n.a." sign is used. Most of the statistical data has its base in 1959 or 1960, but some may date either earlier or later. As such there is no strict time demarcation in this study; nevertheless the concentration is from 1959 to 1968.

Against these limitations, it is hoped that this study would prove a step taken towards eliminating the many limitations that exist in the field of the Treasury Bills market specifically, and the money market in general.

A C K N O W L E D G E M E N T

The successful completion of this study is greatly assisted and encouraged by many friends.

My deepest gratitude goes to Dr. Rais Saniman of the Federal Treasury who has assisted and encouraged me to carry out this study. My appreciation also goes to my supervisor, Mr. Paul Chan for his encouragement, Enche Yusuf of the Treasury Bills section of Bank Negara Malaysia for his cooperation and contribution, Dr. Paul Chung and the many others who have assisted me in every way, possible. Lastly, I am thankful to my aunt, Che Zaiton Ishak, who has kindly consented to type out this exercise.

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CHAPTER I

THE STRUCTURE OF THE FEDERAL GOVERNMENT PUBLIC DEBT

The Budget Deficit

The Federal Government budgetary position had been characterised by overall deficits since 1961. With overall expenditure constantly running ahead of overall revenue, such deficits were inevitable. The faster rate of increase in recurrent expenditure due to the voluminous increase in administrative or day-to-day activities, coupled with the rapid rise in development expenditure due to the national development programme, while receipts only rise gradually, resulted in the overall deficits of the Malaysian budget. These deficits needed to be covered and various sources of financing were sought to balance them, the main source being domestic borrowing, followed by foreign borrowing and run-down of Government accumulated assets. Financing the deficits through borrowing consequently had effect on the national debt, the result being to increase it over the years.

The performance of the budget is of great significance in understanding the performance of the national debt, of which the Treasury Bill is an important component. Hence, a closer look at the budgetary performance since 1960 will be of great enlightenment in understanding the performance of the national debt especially with respect to the domestic national debt and in particular or specifically, the Treasury Bills. Table 1 shows the Central Government Financial Position from 1960 up to 1968, while Figure 1 presents a similar case in the form of bar-charts.

Both the table and the chart show that, except for 1960, Malaysia had been experiencing overall budgetary deficits year-after-year since 1961. From a small overall surplus in 1960, the position changed into a small overall deficit in 1961 which over the years increased rapidly into a substantial deficit of no less than \$605 million by 1967 and \$665 million in 1968. This exercise will examine the development in the budgetary deficits from 1960 to 1968 and the various sources of financing before touching on the national debt, in particular the domestic debt.

The buoyancy of Government finance due to the high export-prices for rubber and tin, the two main exports of Malaysia, made it possible for the country to have a budget surplus of \$96 million for the year 1960. Current revenue for the year was well-ahead of recurrent expenditure, giving a current surplus of \$236 million and this surplus helped to improve the accumulated reserve of the Federal Government. Nevertheless loans were raised during the year, both from domestic borrowing (\$168 million) as well as from foreign borrowing, mainly to finance the development expenditure which stood

TABLE 1

CENTRAL GOVERNMENT FINANCIAL POSITION 1960–1968

($ Million)

Item	1960	1961	1962	1963	1964[2]	1965[3]	1966	1967	1968
ORDINARY BUDGET									
Current receipts:	1069	1081	1097	1150	1458	1580	1655	1834	1875
[1] Recurrent expenditure:	833	886	952	1057	1402	1563	1662	1864	1950
CURRENT SURPLUS OR DEFICIT:	236	195	145	93	56	17	-7	-30	-75
DEVELOPMENT BUDGET:									
Special receipts:	1	1	5	5	60	54	84	51	40
Expenditure:	141	264	415	455	509	590	651	625	630
OVERALL SURPLUS OR DEFICIT:	96	-68	-265	-357	-393	-519	-574	-604	-665
SOURCES OF FINANCING:									
Gross domestic borrowing:	168	125	148	210	212	412	400	529	526
Gross foreign borrowing:	44	31	38	60	6	83	6	116	103
[4] Accumulated assets:	-303	-97	54	86	194	45	193	7	36
[4] Other funds:	-5	9	25	1	-19	-21	-25	-48	
	-96	68	265	357	393	519	574	604	665

[1] Exclude transfers to Development Fund and certain other statutory funds.

[2] Include Central Government transactions in Singapore.

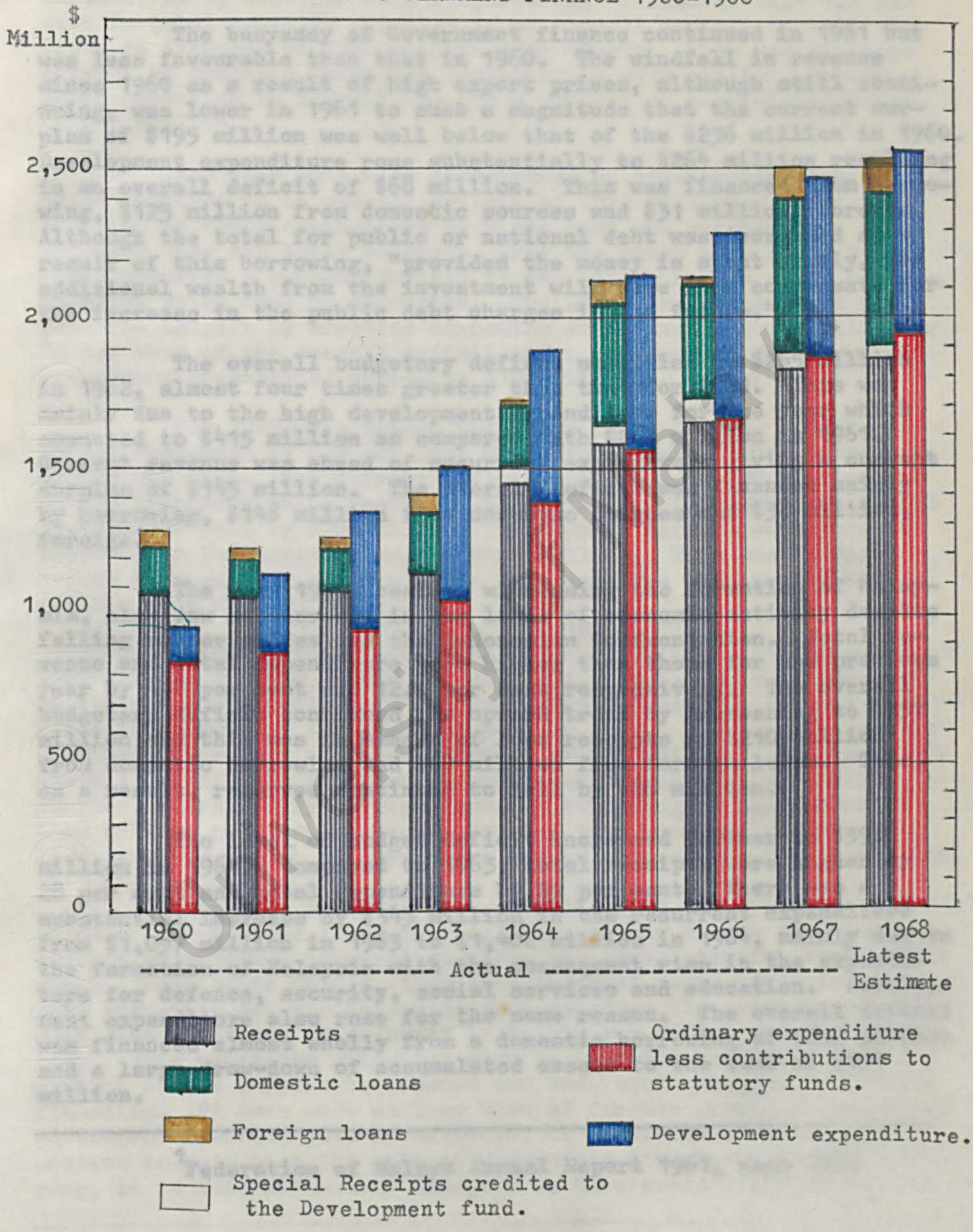
[3] Include Central Government transactions in Singapore up to August 9th. 1965.

[4] Minus sign (–) denotes an increase.

Source: The Treasury, Bank Negara Reports 1967 and 1968, Bank Negara Quarterly Economic Bulletin, March, June, September, 1968.

FIGURE 1

CENTRAL GOVERNMENT FINANCE 1960-1968



Source: Table 1.

at $141 million. These loans therefore were meant for purposes of investment.

The buoyancy of Government finance continued in 1961 but was less favourable than that in 1960. The windfall in revenue since 1960 as a result of high export prices, although still continuing, was lower in 1961 to such a magnitude that the current surplus of $195 million was well below that of the $236 million in 1960. Development expenditure rose substantially to $264 million resulting in an overall deficit of $68 million. This was financed from borrowing, $125 million from domestic sources and $31 million, foreign. Although the total for public or national debt was increased as a result of this borrowing, "provided the money is spent wisely, the additional wealth from the investment will more than compensate for the increase in the public debt charges in the future."[1]

The overall budgetary deficit amplified to $265 million in 1962, almost four times greater than that for 1961. This was mainly due to the high development expenditure for the year which amounted to $415 million as compared with $264 million in 1961. Current revenue was ahead of recurrent expenditure giving a current surplus of $145 million. The overall deficit was financed mainly by borrowing, $148 million from domestic sources and $38 million, foreign.

The year 1963, besides witnessing the formation of Malaysia, also saw an increase in the level of economic activity despite falling rubber prices and the Indonesian Confrontation. Total revenue and total expenditure were higher than those for the previous year by 4.8 per cent and 12.1 per cent respectively. The overall budgetary deficit continued its upward trend by increasing to $357 million and this was in excess of loan receipts of $210 million from domestic borrowing and $60 million from foreign loans. Thus, as a result, reserves continued to fall by $86 million.

The level of budget deficit increased further to $393 million in 1964. Compared to 1963, total receipts were higher by 28 per cent and total expenditure by 29 per cent. There was a substantial increase by $345 million in the recurrent expenditure from $1,057 million in 1963 to $1,402 million in 1964, mainly due to the formation of Malaysia with the consequent rise in the expenditure for defence, security, social services and education. Development expenditure also rose for the same reason. The overall deficit was financed almost wholly from a domestic borrowing of $212 million and a large draw-down of accumulated assets to the tune of $194 million.

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[1] Federation of Malaya Annual Report 1961, page 328.

In 1965, the budget deficit was much higher than that for 1964 and higher still from that in 1961. The faster rise in total expenditure by 10.4 per cent compared with a rise of only 4.2 per cent in total receipts resulted in an overall deficit of $519 million, an increase of $126 million over 1964's. This was financed largely by domestic borrowing amounting to $412 million, foreign loans amounting to $83 million and a rundown of accumulated assets by $45 million.

The year 1966 also experienced an expansionary budget which resulted in an overall deficit of $574 million. Again the increase in total expenditure by 5 per cent was greater than the 4 per cent rise for total receipts. For the first time since 1958, there occurred a current deficit to the slight amount of $7 million, an event which must be corrected. The large overall deficit was financed largely by domestic borrowing amounting to $400 million or 70 per cent of the overall deficit and a substantial draw-down of Government accumulated assets by $193 million.

For 1967, the budget was again expansionary. Total receipts increased by 8.9 per cent while total expenditure increased by 9.2 per cent. The current deficit increased to $30 million due to the greater rise in recurrent expenditure. Although development expenditure fell by $26 million, the overall deficit continued to increase to the large figure of $605 million. This was financed mainly by borrowing, $529 million from domestic sources and $116 million from foreign loans.

The budgetary deficit reached a strained high figure of $665 million in 1968. This was due to the higher rate of increase in the total expenditure of the Central Government by 6.5 per cent while total revenue increased at a lower rate. The current account continued to record a current deficit of $75 million. The large overall deficit was financed as previously by non-inflationary sources, increasingly through domestic borrowing to the amount of $526 million and the balance by foreign loan receipts of $103 million and a draw-down of Government accumulated assets by $36 million.

It should be noted that in 1966, 1967 and 1968, the current account had recorded increasing deficits mainly due to the high recurrent expenditure incurred to cover the administrative costs. This means, among other things, increased national debt. This is not a safe situation for the Malaysian economy since the current account must always balance to maintain stability and efficiency in the economy. This unhealthy situation must be corrected in order that a current budget surplus be created and made available for investment financing. "A much more austere view of further growth in recurrent government spending will be necessary if a surplus is again to be created to help meet the cost of Malaysia's investment needs."[2] However, it is internationally accepted to have overall budget deficits

[2] First Malaysia Plan 1966-1970, page 71.

TABLE 2

CENTRAL GOVERNMENT DEBT, 1960-1968

($ Million)

Item	1960	1961	1962	1963	1964	1965	1966	1967[1]	1968
DOMESTIC DEBT:									
Treasury bill	113	106	109	148	222	450	578	644	779
Treasury deposit receipts	140	140	103	56	31	0.1	0.1	0.1	0.1
Two-year securities	-	-	15	51	54	32	15	-	-
Three-year securities	-	-	-	-	-	13	54	54	100
Five-year securities	28	32	75	107	98	97	97	155	225
Seven-year securities	-	-	-	-	-	-	-	25	25
Long-term securities	816	933	1069	1223	1365	1579	1753	2108	2352
Advance subscription	9	21	8	2	11	2	4	1	1
Subtotal:	1106	1232	1379	1587	1780	2183	2511	2997	3490
EXTERNAL DEBT:									
Market loans	264	284	284	327	327	404	396	393	374
Other loans	96	89	111	116	111	107	105	135	216
Subtotal:	360	373	395	443	438	511	501	528	590
TOTAL DEBT:	1466	1605	1774	2030	2218	2694	3011	3525	4080

[1] Sterling loans have been adjusted for the £ Sterling devaluation.

Source; The Treasury, Bank Negara Quarterly Economic Bulletin, March, June, September 1968, and Bank Negara Report, 1968.

if the country is undertaking large-scale development programme, as is the case in Malaysia. The future revenue that will come from these developments will be enough to pay off the increase in the national debt.

There was therefore a steady deterrioration in the budgetary position year-after-year since 1961 due to the very substantial increases in the total expenditure relative to the increase in total receipts. For instance, between 1961 to 1965, total expenditure increased at an average annual rate of 16.9 per cent while on the other hand, total receipts rose at an average annual rate of only 8.7 per cent.

The budgetary deficits over the period 1961 to 1968 were financed mainly from borrowing, especially from domestic sources as well as some external loans, which were reflected in the volume of the public national debt incurred by the nation over the same period. This can be seen from Table 2 on Central Government Debt.

<u>The Domestic National Debt</u>:

The total debt of the Central Government had been on the increase throughout the years 1960-1968. In 1960, the total volume of Central Government Debt was $1,465.7 million. This volume gradually increased to $1,773.8 million in 1962 and increased rapidly thenceon, mainly due to the formation of Malaysia and its consequent expenditure, so that by 1967 the volume stood at $3,524.7 million, a figure which is more than doubled the 1960 volume.

The rise in the national debt had been made necessary because of the increase in the overall deficits of the budget. As was seen earlier, the main source of financing of these deficits came from borrowing. Of further importance was the trend over the period for borrowing to come largely from domestic sources, relative to external borrowing. Increased borrowing from domestic sources was possible because of the availability of large amount of funds lying around in the economy. This is evidence by the increase in the volume of deposits, in particular fixed and savings deposits, with the commercial banks, as can be seen from Table 3 and Figure 2.

From the table, it can be seen that total deposits with commercial banks had increased steadily from $1,186 million in 1961 to $1,744 million in 1965 and $2,670 million by 1968, an increase by almost 150 per cent from the 1961 volume. By types, with the small exception of "other deposits", current, fixed and savings deposits all showed increases. Most significant was the rise in fixed deposits from $474 million in 1961 to $1,260 million in 1968, almost trebled the former. Eversince 1965, fixed deposits formed the main proportion of total deposits. By 1968, it formed 47 per cent of total deposits. The volume of savings deposits in 1968 stood at $484 million which more than trebled the 1961 volume of $154 million. Percentage-wise, savings deposits had steadily increased from 13 per cent in 1961 to 17 per cent in 1964 and 20 per cent in 1967. The percentage for 1968 however, fell slightly to 18 per cent. Thus, the availability of funds in the economy, as shown by the rise in deposits at the banks, made borrowing from domestic sources possible for the purpose of financing the deficits. Furthermore, this policy only reflects the realisation of the Government on the advantages of borrowing domestically. The main advantage of domestic borrowing is that the government by doing so, aids in mobilising funds that are lying idle in the economy and to channel them into productive purposes. "Accelerated economic development in Malaysia.... in recent years, calls for an intensive mobilisation of recourses in which commercial banks have an important role to play."[3] Also, there is no leakage of national wealth abroad; large amounts of foreign exchange could be saved and the additional wealths that are created from investments only circulate within the economy.

TABLE 3

COMMERCIAL BANK DEPOSITS BY TYPE

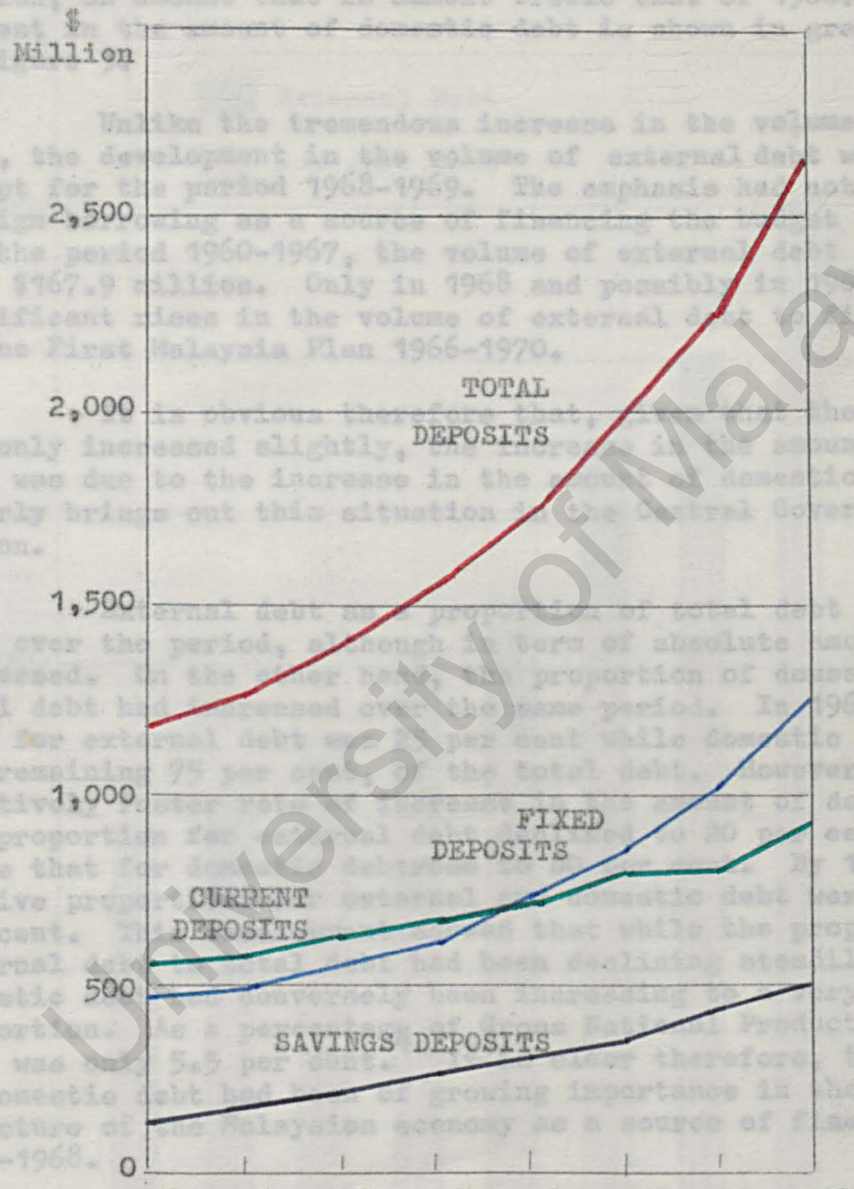
As at end of	Current		Fixed		Savings		Other		Total
	$m.	%	$m.	%	$m.	%	$m.	%	$m.
1961	550	46	474	40	154	13	8	1	1,186
1962	576	64	485	39	182	14	12	1	1,255
1963	627	45	543	39	218	15	10	1	1,398
1964	665	43	600	39	257	17	10	1	1,532
1965	714	41	727	41	291	17	12	1	1,744
1966	795	40	842	43	340	17	5	-	1,982
1967	792	35	1012	45	434	20	6	-	2,244
1968	920	35	1260	47	484	18	6	-	2,670

Source: Bank Negara Reports 1966 and 1968.

[3] Bank Negara Annual Report, 1965, page 41.

FIGURE 2

MALAYSIA
COMMERCIAL BANK DEPOSITS FROM
1961 to 1968



Source: Table 3.

The growing importance of the Domestic National Debt to cover the deficits can be seen from Table 2. The amount of domestic debt was $1,106 million as at the end of 1960. As a result of increased reliance on domestic borrowing, the volume of domestic debt increased steadily to $1,378.9 million in 1962 and $1,587 million in 1963. From 1964 onwards, the volume of domestic debt showed a rapid increase that by 1967, the figure for it was $2,997 million, an amount that is almost treble that of 1960. The development in the amount of domestic debt is shown in graphical form in Figure 3.

Unlike the tremendous increase in the volume of domestic debt, the development in the volume of external debt was only slight except for the period 1968-1969. The emphasis had not been on gross foreign borrowing as a source of financing the budget deficits. Thus, for the period 1960-1967, the volume of external debt increased by only $167.9 million. Only in 1968 and possibly in 1969 were there significant rises in the volume of external debt to finance a part of the First Malaysia Plan 1966-1970.

It is obvious therefore that, given that the external debt had only increased slightly, the increase in the amount of national debt was due to the increase in the amount of domestic debt. Figure 3 clearly brings out this situation in the Central Government Debt position.

External debt as a proportion of total debt tended to decline over the period, although in term of absolute amount, it had increased. On the other hand, the proportion of domestic debt to total debt had increased over the same period. In 1960, the proportion for external debt was 25 per cent while domestic debt made up the remaining 75 per cent, of the total debt. However, due to the relatively faster rate of increase in the amount of domestic debt, the proportion for external debt declined to 20 per cent in 1964 while that for domestic debtrose to 80 per cent. By 1967, the respective proportions for external and domestic debt were 15 and 85 per cent. This development showed that while the proportion of external debt to total debt had been declining steadily, that for domestic debt had conversely been increasing to a very significant proportion. As a percentage of Gross National Product, domestic debt was only 5.5 per cent.[4] It is clear therefore, that the volume of domestic debt had been of growing importance in the public debt structure of the Malaysian economy as a source of finance between 1960-1968.

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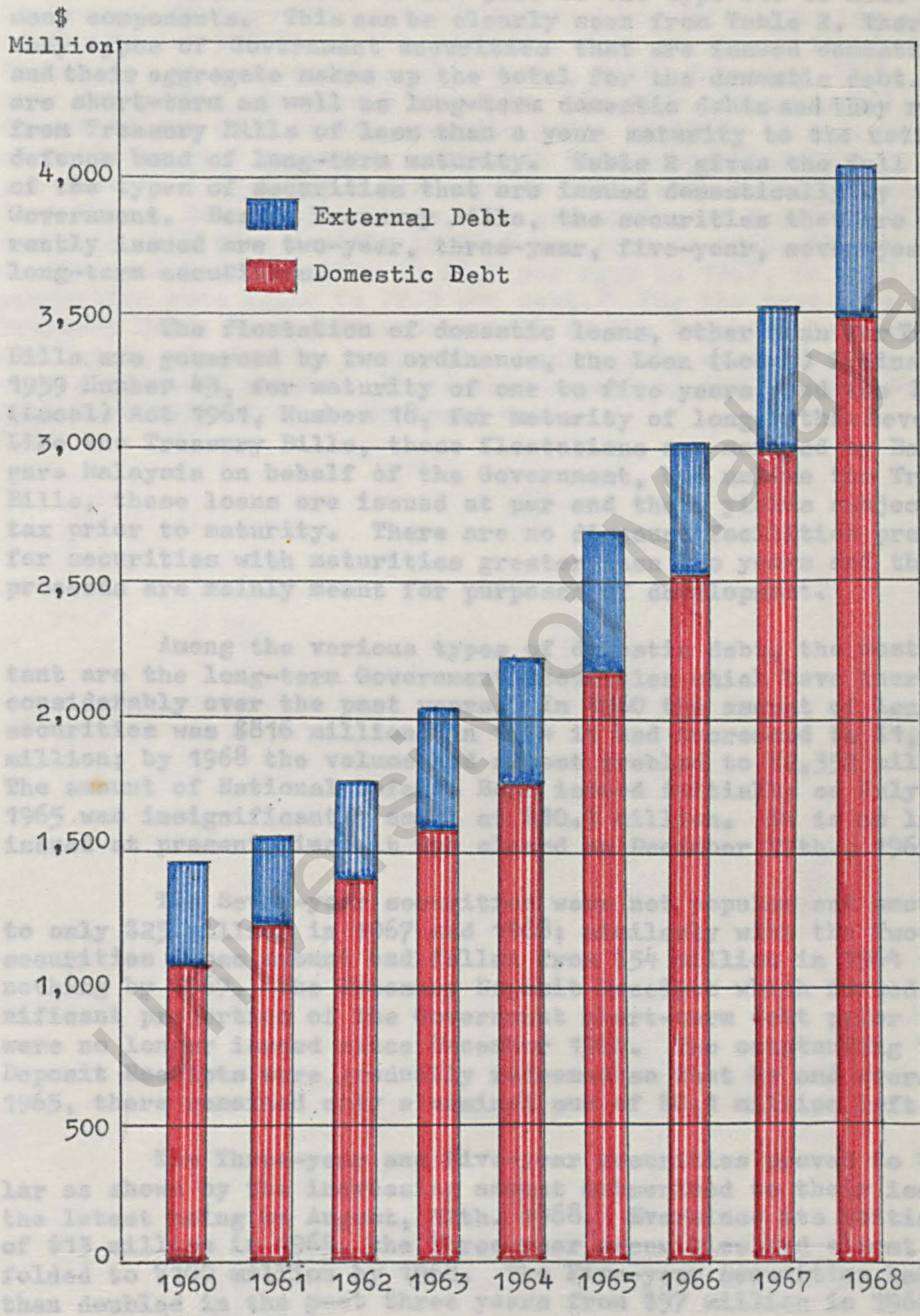
[4] Tun Tan Siew Sin, Budget Speech, page 29.

FIGURE 3

CENTRAL GOVERNMENT DEBT 1960-1968



Source; Table 2.

Types of Government Securities:

Domestic debt is not just of one type but is made up of many components. This can be clearly seen from Table 2. There are many types of Government securities that are issued domestically and their aggregate makes up the total for the domestic debt. There are short-term as well as long-term domestic debts and they ranged from Treasury Bills of less than a year maturity to the national defence bond of long-term maturity. Table 2 gives the full list of the types of securities that are issued domestically by the Government. Beside Treasury Bills, the securities that are currently issued are two-year, three-year, five-year, seven-year and long-term securities.

The floatation of domestic loans, other than for Treasury Bills are governed by two ordinance, the Loan (Local) Ordinance 1959 Number 43, for maturity of one to five years, and the Loan (Local) Act 1961, Number 18, for maturity of longer than seven years. Like the Treasury Bills, these floatations are managed by Bank Negara Malaysia on behalf of the Government, but unlike the Treasury Bills, these loans are issued at per and their yields subject to tax prior to maturity. There are no discount facilities provided for securities with maturities greater than two years and their proceeds are mainly meant for purposes of development.

Among the various types of domestic debt, the most important are the long-term Government securities which have increased considerably over the past years. In 1960 the amount of long-term securities was $816 million; in 1964 it had increased to $1,365 million; by 1968 the volume had almost trebled to $2,352 million. The amount of National Defence Bond issued initially on July 14th 1965 was insignificantly small at $10.3 million. It is no longer issued at present since it was closed on December 17th., 1965.

The Seven-year securities were not popular and amounted to only $25 million in 1967 and 1968; similarly with the Two-year securities whose amount had fallen from $54 million in 1964 to nothing by 1967. The Treasury Deposit Receipts which formed a significant proportion of the Government short-term debt prior to 1961 were no longer issued since December 1960. The outstanding Treasury Deposit Receipts were gradually redeemed so that by and eversince 1965, there remained only a nominal sum of $0.1 million left.

The Three-year and Five-year securities proved to be popular as shown by the increasing amount subscribed to their issues, the latest being on August, 12th. 1968. Eversince its initial issue of $13 million in 1965, the Three-year securities had almost eight-folded to $100 million by 1968. The Five-year securities had more than doubled in the past three years from $97 million in 1966 to $225 million in 1968.

However, of the many types of short-term Government securities, the Treasury Bills were the most important. Treasury Bills had over the period 1960 to 1968 turned into the most important instrument for very short-term Government borrowing. The importance of the Treasury Bills in the domestic debt structure is shown by Figure 4. As a proportion of domestic debt, Treasury Bills have over the period, increased steadily. In 1959, Treasury Bills only formed 10 per cent of the domestic debt; in 1960, this figure rose slightly to 10.2 per cent. Although this proportion fell to 8.6 per cent in 1961 and 7.9 per cent in 1962, such tendency did not last long. From 1963 onwards, the proportion of Treasury Bills to domestic debt rose rapidly to 20.6 per cent in 1965, 23 per cent in 1966 and fell slightly to 21.5 per cent in 1967, in 1968 the proportion rose again to 22.3 per cent.[5] For the past five years, Treasury Bills formed over one-fifth of the Domestic National Debt - a fairly significant proportion taking into consideration its very short-term nature. It is this aspect of the Domestic National Debt that this study is focussed on.

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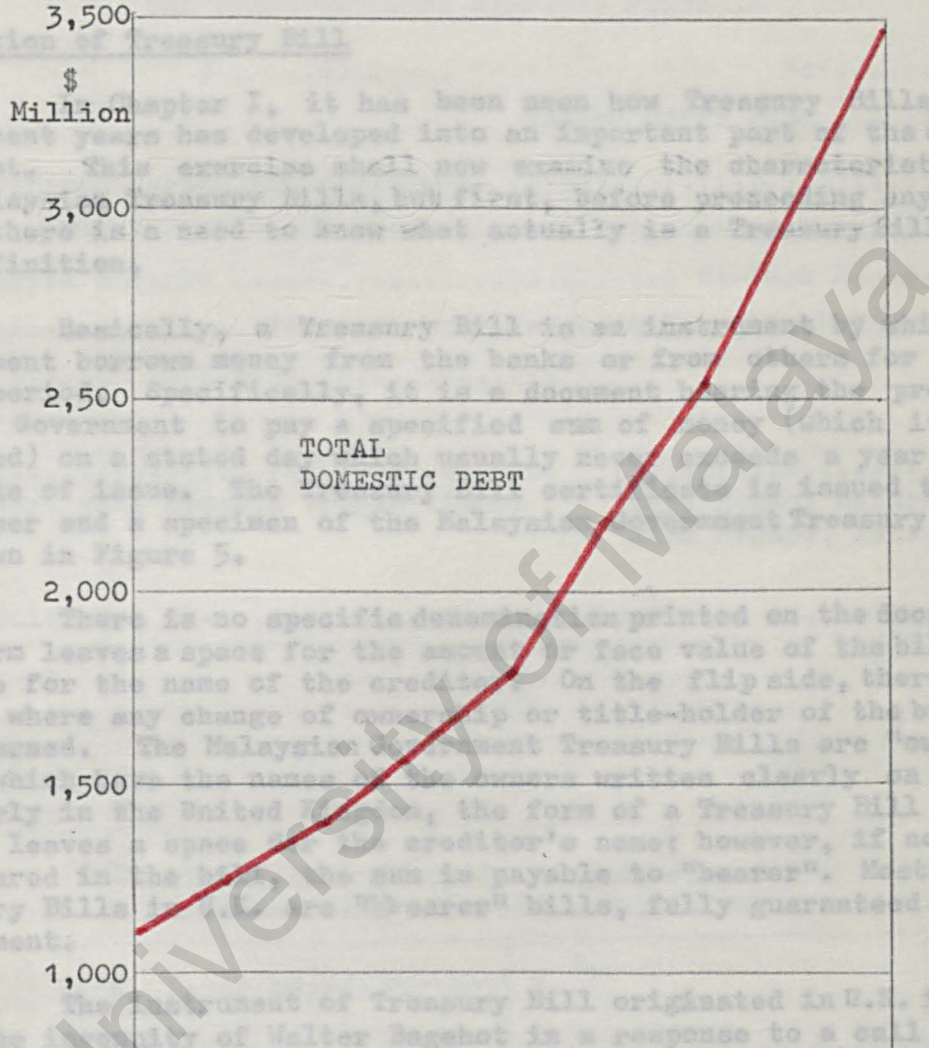
[5] The percentage figures are calculated from Table 2.

FIGURE 4

COMPOSITION OF DOMESTIC DEBT -
TREASURY BILL AS A COMPONENT.



Source: Table 2.

CHAPTER II

CHARACTERISTICS OF THE MALAYSIAN TREASURY BILLS

Definition of Treasury Bill

In Chapter I, it has been seen how Treasury Bills over the recent years has developed into an important part of the domestic debt. This exercise shall now examine the characteristics of the Malaysian Treasury Bills, but first, before proceeding any further, there is a need to know what actually is a Treasury Bill i.e. its definition.

Basically, a Treasury Bill is an instrument by which a Government borrows money from the banks or from others for very short period. Specifically, it is a document bearing the promise of the Government to pay a specified sum of money (which it has borrowed) on a stated day which usually never exceeds a year from the date of issue. The Treasury Bill certificate is issued to the purchaser and a specimen of the Malaysian Government Treasury Bill is shown in Figure 5.

There is no specific denomination printed on the document. The form leaves a space for the amount or face value of the bill and a space for the name of the creditor. On the flip side, there are spaces where any change of ownership or title-holder of the bill can be endorsed. The Malaysian Government Treasury Bills are "owner" bills which have the names of the owners written clearly on them. Similarly in the United Kingdom, the form of a Treasury Bill certificate leaves a space for the creditor's name; however, if no name is entered in the bill, the sum is payable to "bearer". Most of the Treasury Bills in U.K. are "bearer" bills, fully guaranteed by the Government.

The instrument of Treasury Bill originated in U.K. in 1876 from the ingenuity of Walter Bagehot in a response to a call by the U.K. Treasury to help devise an instrument of short-term Government borrowing more satisfactory than the old Exchequer bill. Since then the Treasury Bills had been adopted by other countries as a means of short-term Government borrowing. The British Government, in its Colonial days, also introduced this form of borrowing into the Federated Malay States of the Malay Peninsula.

The Malaysian Treasury Bills perform the same basic purpose as Treasury Bills in U.K., U.S.A., or Canada. More so, not only are Treasury Bills a short-term borrowing device by the Government but they are also performing the important function of being an avenue for short-term investments in this country. Lack of avenues for short-term investments in recent years has left millions of dollars of short-term funds lying idle, not invested and thus

FIGURE 5

SPECIMEN OF A MALAYSIAN TREASURY BILL

Front side:

BIL PERBENDAHARAAN KERAJAAN MALAYSIA

$ .... No:.......

TARIKH GENAP MASA ....

Bil Perdendaharaan ini menghakkan ....

...... ATAU PERENTAH, menerima bayaran dengan wang Malaysia

sa-banyak Ringgit .... di-Bank Negara

Malaysia, ... daripada kumpulan wang Kerajaan Malaysia

pada .... haribulan ......19......

....

Pegawai yang menanda tangan timbal — bagi pehak, Gabernor Bank Negara, Malaysia.

Di-keluarkan di-.......... pada ..... haribulan ......19.....

Flip side:

Ruangan ini di-khaskan untok chatitan dan tiap2 satu chatitan hendak-lah di-buat dalam ruangan yang di-untokkan.

Chatitan2 lain daripada yang di-atas Bil Perbendaharaan ini sendiri tidak sah.

1. Bayar kepada Perentah	5.
2.	6.
3.	7.
4.	8.

unproductive. This was not a healthy sign since on the one part, Malaysia as a rising nation would need to have funds, especially from within, to cover its rising expenditure, and on the other, the public and the businesses would need to put into productive use any excess short-term funds for the improvement of their well-being and hence the nation's, To meet such inadequacy, The Malaysian Government stepped up its issue of Treasury Bills with a view to forming a short term money market in Malaysia. Since August 12th. 1957, Treasury Bills were no longer issued by tender but through the tap probably as a step to encourage those with excess short-term funds to invest in Treasury Bills. Thus by issuing Treasury Bills, the Malaysian Government not only hoped to obtain short-term domestic finance as against external borrowing, but also hoped to mobilise and utilise short-term funds that were lying idle in this country.

Besides offering currency, borrowing by Treasury Bills has the advantage of being the cheapest means of borrowing available to the Government. In U.K., it has been designed to take advantage of the low rates of interest prevailing in the discount market. On the average, borrowing by Treasury Bills is cheaper than long-term borrowing since the rate on Treasury Bills is lower than that for, say, bonds.

Floating Debt

Together with the Treasury Deposit Receipts, the Malaysian Government Treasury Bills form the floating debts of the country. Floating debts are debts on demand and are of short-term nature. They represent current short-term indebtedness as distinguished from the funded debts of the Government. Table 4 shows the composition of the Malaysian Government Floating Debts.

Prior to 1962, the part of the floating debts constituted by Treasury Bills was smaller than that of the Treasury Deposit Receipts. However, since 1961, the issue of Treasury Deposit Receipts was stopped and the amount outstanding was gradually redeemed so that from 1962 onwards, Treasury Bills took the place of Treasury Deposit Receipts as the major constituent of the floating debts in the country. Since 1965, Treasury Bills formed virtually 100 per cent of the floating debts and this position continued till today.

Types of issue

Duration

Treasury Bills are normally issued for certain periods in certain denominations and at different rates of interest. The Treasury Bills in Malaysia are issued for periods of 91 days, 182 days, 273 days, and 364 days. Originally, they were issued in terms of months for periods of 3 months, 6 months, 9 months, and 12 months. Although these issues approximately corresponded to those issued in terms of days, the latter was preferred because it solved such problems like differences in the number of days for different periods and that of the leap year. For example, a Treasury Bill issued on say, February 1st. 1968 for a period of 3 months and maturing on April 30th. 1968, would have a total of 89 days. However, a 3-month bill issued in another period say, on November 1st. 1968 and maturing on January 31st. 1969, would have a total of 92 days, not 89 days. It was for this expressed reason that the issue of Treasury Bills in terms of number of days was adopted. Another important reason for issuing the maturities of Treasury Bills in terms of days and no longer in months was in order to avoid maturities on Sundays. However, unless otherwise stated, the terms 3-month, 6-month, 9-month and 12-month bills shall be taken as corresponding to the 91, 182, 273 and 364-day bills respectively. The main proportion of the Treasury Bills issue was that for the 91-day bills which proved to be most popular among short-term investors, especially the commercial banks. In July 1968, the 91-day bills constituted 97 per cent of the total Treasury Bills issue.

TABLE 4

FLOATING DEBTS IN MALAYSIA, 1959-1968

($ Million)

Year	Treasury Bills	Treasury Deposit Receipts	Total	T. Bills as a % of Total Floating Debt.
1959	94.6	104	198.6	47.6
1960	112.9	140.2	253.1	44.6
1961	106.0	140.2	246.2	43.1
1962	109.3	102.7	212.0	51.6
1963	148.2	56.2	204.0	72.5
1964	221.5	30.5	252.0	87.9
1965	449.8	0.1	449.9	100.0
1966	578.1	0.1	578.2	100.0
1967	643.8	0.1	643.9	100.0
1968	778.6	0.1	778.7	100.0

Data compiled from Bank Negara sources.

Denomination

The minimum denomination for a Treasury Bill issue is $10,000. The Malaysian Government does not issue denominations like $1,000,....$5,000 or any others lower than that of $10,000. Subscription to the Treasury Bills issue for amounts greater than $10,000 are available but only in multiples of $10,000. This means that Treasury Bills are only issued in the denominations of $10,000 ....$20,000....$100,000....$1 million....etc., which are divisible by $10,000 and not in the denomination of $10,500 or $100,170 which are not directly divisible by $10,000. Other than the statutory limit to the maximum amount of Treasury Bills which the Government can issue, there is no maximum limit set on the denomination of Treasury Bills issue so long they remain multiples of $10,000.

Discount

Like any other Treasury Bills in the world, the Malaysian Government Treasury Bills are issued at a discount i.e. below par value. The discount on a Treasury Bill issue is the difference between the price paid at the time of issue and the face value of the obligation at maturity. The Treasury Bills therefore differ from other interest-bearing securities in that it does not have interest accruing to its face value from year to year. Rather the discount offered on an issue represents the interest. The rate of discount is "the rate at which interest is deducted from the face amount of the bill."[1] As an illustration, take the case of a purchaser of a three-month Treasury Bill with a face value of $10,000 at a rate of discount of say, 5 per cent. At 5 per cent rate, the purchaser will get a discount of $124,657 cents. Thus, at the time of issue the purchaser will need to pay the face value of $10,000 less the discount of $124,657, that is $9,875.34. Upon maturity of the bill, he will present the bill for redemption and will receive the face value of $10,000 from the Government. The calculation on the rate of discount will be dealt with in greater detail in a later chapter. All rates of discount are issued on per annum basis.

The rates of discount on the Malaysian Treasury Bills issue are fixed by the Government upon the advice given by Bank Negara, and have been subjected to several changes over the recent years. On certain occassions a uniform rate was set up on all four types of bills i.e. the 3, 6, 9, and 12-month bills. In other periods, different rates of discount were set up for the different types of bills. The development in the rates of discount on Malaysian Treasury Bills is shown in Table 5. Between 1957 and 1959, the discount rates on different types of bills were varied. The rates in the second-half of 1959 were 3 per cent for 3 and 6-month bills, and 3¼ per cent for 9 and 12-month bills. However, for the period between 1st. July 1960 and 10th. June 1968, uniform discount rates for all types of bills were employed and these rates varied ffom 4 per cent in 1960 to 5½ per cent as in 1967. From 10th. June 1968, while the rate on 12-month

[1] W.Manning Dacey, The British Banking Mechanism, London, Hutchinson, Page 48.

bills remained at 5½ per cent, that for 3 to 9-month bills was lowered to 4½ per cent, Further changes were made from 1st. August 1968 when different interest rates for different types of bills were adopted. The rates were 4 per cent for 3-month bill, 4½ per cent for 6-month bill, 5 per cent for 9-month bill and 5½ per cent for 12-month bill.

TABLE 5

MALAYSIAN GOVERNMENT TREASURY BILLS DISCOUNT RATES

(per cent per annum)

Date of change	3-month	6-month	9-month	12-month
12. 8. 1957	3 7/8	3 7/8	4	4
3. 6. 1958	4 3/8	4¼	4¼	4¼
1. 7. 1958	4	4	3½	3½
24.11. 1958	3½	3½	3	3
29. 4. 1959	2 7/8	2 7/8	3	3
29. 7. 1959	3	3	3¼	3¼
1. 7. 1960	4	4	4	4
10. 8. 1961	5	5	5	5
15. 2. 1962	4½	4½	4½	4½
30. 8. 1962	4	4	4	4
25.11. 1964	5	5	5	5
20.11. 1967	5½	5½	5½	5½
10. 6. 1968	4½	4½	4½	5½
1. 8. 1968	4	4½	5	5½

Data compiled from Bank Negara sources.

Changes in the Treasury Bill discount rates prior to 1959 were very largely due to changes in the U.K. Bank Rate. The close financial and trading links with U.K. prior to the establishment of Bank Negara Malaysia together with the comparative ease and the low cost of transferring funds between Malaysia and U.K. made changes in the U.K. Bank Rate have effect on the credit condition in Malaysia. However, since the establishment of Bank Negara in 1959, the Bank has endeavoured to relate interest rates more closely to the needs of the country. Thus, in the short period, the Malaysian interest rates structure was trimmed to the conditions in the country and was no longer automatically and directly affected by short-period changes in the U.K. Bank Rate as can be seen from Table 6. From the table, it can be seen that, while in 1960 the U.K. Bank Rate was changed four times, the Malaysian bill rate, having regards to the local condition, was necessarily changed only once. In 1961, while the U.K. Bank Rate was changed thrice, again it was found necessary to change the local discount rate only once, i.e. a rise in order to check any outflow of funds to U.K. Thus eversince 1959, "the Central Bank in considering interest rate policy which it deems suitable, is primarily governed by its duty 'to influence the credit situation to the advantage of the Federation' having regard also to the international trends prevailing at the time."[2] Nevertheless, over the long-run, the Malaysian rates have to conform to the international trends in interest movements, especially that of U.K. A close watch on the U.K. Bank Rate and the necessary steps to be taken with regards to local interest rates were necessary in order to prevent the outflow of local capital to U.K. Table 7 and Figure 6 show how the U.K. Bank Rate affected the U.K. money market rates and the ultimate effect on the Malaysian Government Treasury Bills rates.

From both the table and the figure it can be seen that until 1968, changes in the Malaysian Treasury Bills rates were, over the long run, principally caused by changes in the U.K. Bank Rate mainly because the banking and financial link with U.K. is still not and probably cannot be completely eradicated. In order to be competitive with the U.K. money market rates, the local Treasury Bill rate had been made as attractive as possible relative to the former. For instance, in 1961 when Bank Rate in U.K. was raised from 5 to 6 per cent, in order to prevent any possible outflow of funds, not only were the minimum lending and the maximum deposit rates raised but the Federation Treasury Bill discount rate was also raised from 4 to 5 per cent, relative to the new U.K. money market rate of 5.13 per cent.

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[2]Bank Negara, Annual Report 1962, page 33.

TABLE 6

CHANGES IN U.K. BANK RATE AND IN MALAYSIAN TREASURY BILL RATE IN 1960-1961

U.K. BANK RATE		MALAYSIAN BILL RATE	
Date	Change	Date	Change
21. 1.'60	From 4 to 5%	-	-
23. 6.'60	" 5 to 6%	1.7.1960	From 4 to 5%
27.10.'60	" 6 to 5½%	-	-
8.12.'60	" 5½ to 5%	-	-
July 1961	From 5 to 7%	10.8.1961	From 4 to 5%
October '61	" 7 to 6½%	-	-
November '61	" 6½ to 6%	-	-

Source: Bank Negara Reports 1960-1961

TABLE 7

MOVEMENTS OF U.K. BANK RATE AND OF THE MALAYSIAN DISCOUNT RATE 1958-1968

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968
U.K. BANK RATE	4.00	4.00	5.00	6.00	4.50	4.00	7.00	6.00	7.00	8.00	7.00
[1]U.K. MONEY MARKET RATE	4.56	3.37	4.88	5.13	4.18	3.66	4.61	5.91	6.10	6.57	6.80
[2]MALAYSIAN DISCOUNT RATE	3.5	3.0	4.0	5.0	4.0	4.0	5.0	5.0	5.0	5.5	4.0

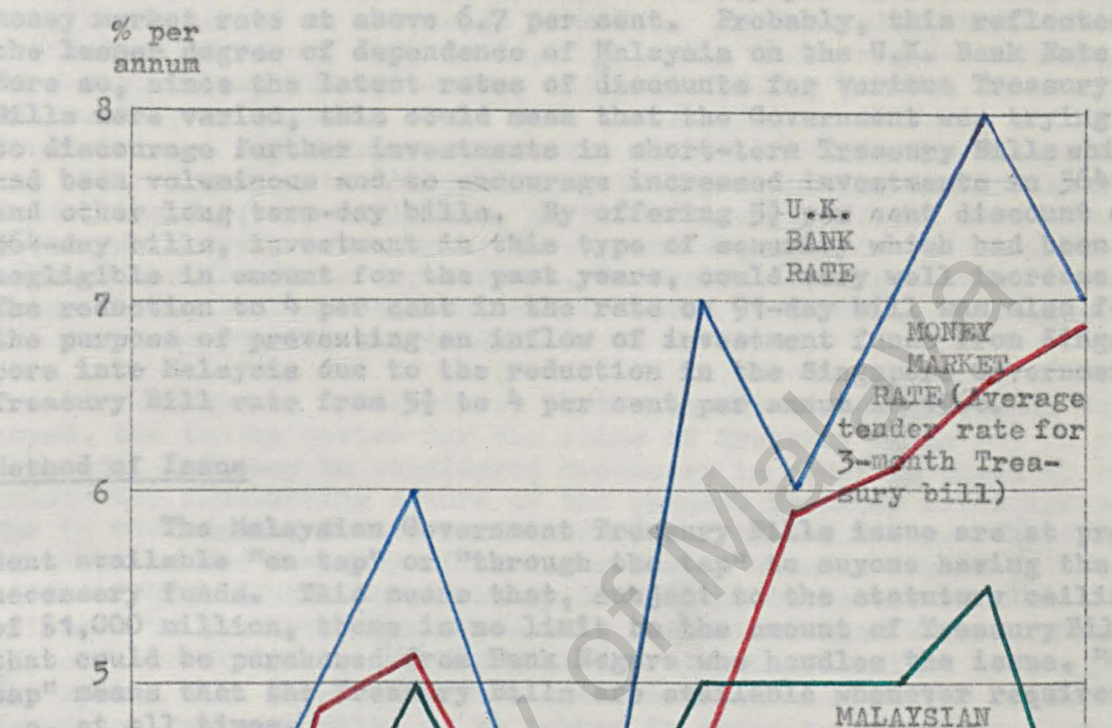
[1]Average tender rate for three-month Treasury Bills

[2]Malaysian Government Treasury Bill discount rate for 91-day bills.

Source: International Financial Statistics Feb. 1969, Bank Negara sources.

FIGURE 6

MOVEMENTS OF UNITED KINGDOM BANK RATE AND
THE MALAYSIAN TREASURY BILL DISCOUNT RATE



Source: Table 7

Since June 1968, the Malaysian Treasury Bills discount rate did not follow the U.K. Bank Rate or the U.K. money market rate. The rate on 91-day bill was reduced from 5.5 per cent to 4.5 per cent in June and further reduced to 4 per cent in September, while the U.K. Bank Rate continued to remain at 7.5 per cent and the U.K. money market rate at above 6.7 per cent. Probably, this reflected the lesser degree of dependence of Malaysia on the U.K. Bank Rate. More so, since the latest rates of discounts for various Treasury Bills were varied, this could mean that the Government was trying to discourage further investments in short-term Treasury Bills which had been voluminous and to encourage increased investments in 364 and other long term-day bills. By offering 5½ per cent discount on 364-day bills, investment in this type of security which had been negligible in amount for the past years, could very well increase. The reduction to 4 per cent in the rate on 91-day bill was also for the purpose of preventing an inflow of investment funds from Singapore into Malaysia due to the reduction in the Singapore Government Treasury Bill rate from 5½ to 4 per cent per annum in 1968.

<u>Method of Issue</u>

The Malaysian Government Treasury Bills issue are at present available "on tap" or "through the tap" to anyone having the necessary funds. This means that, subject to the statutory ceiling of $1,000 million, there is no limit to the amount of Treasury Bills that could be purchased from Bank Negara who handles the issue. "On tap" means that the Treasury Bills are available whenever required i.e. at all times.

The main feature of the tap issue is that the rates of discounts are predetermined by the authority, in this case, the Accountant-General of the Treasury in collaboration with, and acting upon the advice of Bank Negara Malaysia in the latter's role as financial adviser to the Government. The Treasury Bills are therefore issued at a fixed price, as deemed by the a authority, and the rates are not very flexible to the demand for Treasury Bills over the short period.

Until August 12th. 1957, Treasury Bills were issued by tender, and though this method of issue is currently absent in Malaysia, it should equally well be noted because it is likely to be re-adopted once the money market in general, and the Treasury Bills market in particular, become developed. Briefly, the method of issue by tender as are found in U.K., Canada and other countries, is as follows: When the Government requires to borrow upon Treasury Bills, an announcement for tenders appears in the Gazette every week and forms of tenders are obtainable from the central bank. In the Gazette announcement, the Government states the amount of bills it proposes to issue and invites tenders. Thus the amount of issue is predetermined and is suited to the need of the Government. The various demanders of Treasury Bills will then make their offers of purchase by stating the amount and the price at which they are willing to purchase. From the various competitive bids submitted, a rate of discount is arrived at and the bidders with the highest bids or prices will get the issue.

Tender bills therefore differ from tap bills in that they are only available once a week, and normally issued to the highest bidders at a specified amount, for a weekly determined price.

The issue of Treasury Bills in Malaysia differs slightly from those issued in countries like U.K. In Malaysia, there is only one method of issue, i.e. by tap. In U.K., there are two methods of issue, on tap and by tender, while in U.S.A., 3-month bills are sold weekly at auction. Even with the tap issue, there is a difference between the Malaysian and that of U.K.. While the Malaysian tap bills are open to the public or to anyone having the necessary funds, the U.K. tap bills are, on the contrary, offered on a closed basis exclusively taken up by Government departments and eligible holders such as State departments, Government savings banks, insurance funds, Bank of England, and favoured customers. In this sense, the issue is outside the tender.

There is a likelihood that once the money market has developed, the tender system for the issue of Treasury Bills may be re-adopted. This may be considered necessary in order to check or regulate the fluctuating nature of the present Treasury Bills issue due to the varying demand conditions for Treasury Bills. The fluctuations in the Treasury Bills issue can be seen in Figure 7. Periods of high demand for Treasury Bills tend to result in high balances in the Accountant-General's account at Bank Negara, which if not well-utilised, are undesirable. A reintroduction of the tender system will encertain, in a predetermined manner, the desired amount of Treasury Bills to be issued in order to avoid unnecessary high Accountant-General balances at Bank Negara Malaysia. Nevertheless, in view of the still developing nature of the money market in the country, the tap system should be maintained for the purpose of fostering, in an unrestricted way, the development of the money market via the Treasury Bills market.

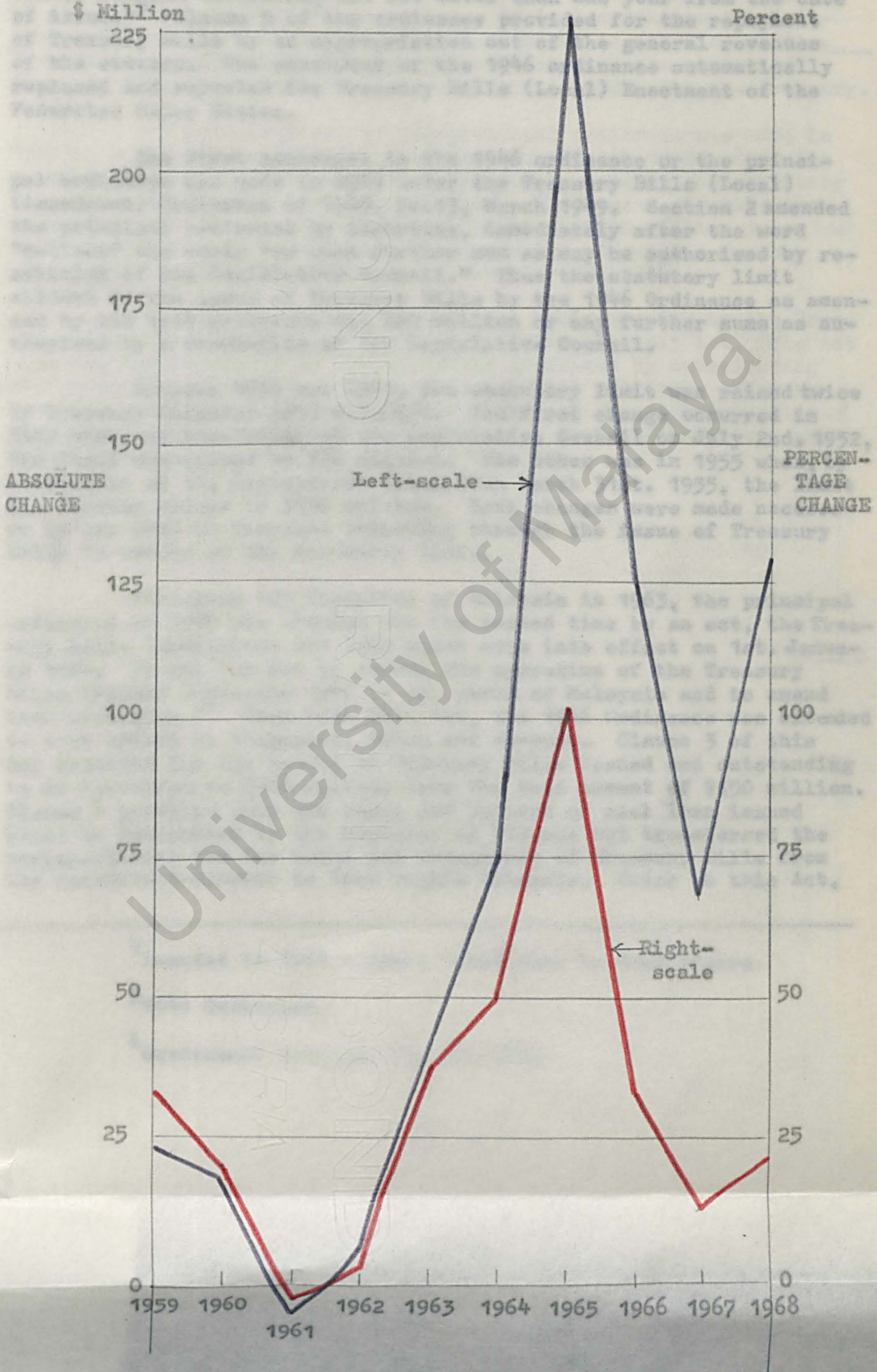
Governing Ordinance and its Various Amendments

The issue of the Malaysian Government Treasury Bills is governed by an immediate postwar ordinance entitled the Treasury Bills (Local) Ordinance 1946. It was "an Ordinance to provide for the borrowing of money by the issue of Treasury Bills in the Malayan Union."[3] Under this ordinance, the power to borrow money by the issue of Treasury Bills was invested in the Financial Secretary with the approval of the Governor of the Malayan Union, and the maximum limit to the amount of Treasury Bills issued and outstanding at any time was not to exceed $20 million. The ordinance also laid out that the principal money, represented by the Treasury Bills issued, were to be charged upon and payable out of the general revenue and assets of the country. The amounts and the period of currency of the Treasury Bills that could be issued were also provided in Clause 4 of the ordinance which

[3]Government Gazette No.7, 24th. June 1946, Volume 1.

FIGURE 7

ANNUAL CHANGE IN TREASURY BILLS OUTSTANDING, 1959-1968



Source: Table 15

stated that "every Treasury Bill issued under this ordinance shall be for the sum of ten thousand dollars or a multiple of the ten thousand dollars and shall be payable at par at such time or times as the Financial Secretary[4] shall, before each issue of Treasury Bills, fix and determine, but not later than one year from the date of issue."[5] Clause 5 of the ordinance provided for the repayment of Treasury Bills by an appropriation out of the general revenues of the country. The enactment of the 1946 ordinance automatically replaced and repealed the Treasury Bills (Local) Enactment of the Federated Malay States.

The first amendment to the 1946 ordinance or the principal ordinance was made in 1949 under the Treasury Bills (Local) (Amendment) Ordinance of 1949, No.13, March 1949. Section 2 amended the principal ordinance by inserting, immediately after the word "dollars" the words "or such further sum as may be authorised by resolution of the Legislative Council." Thus the statutory limit allowed to the issue of Treasury Bills by the 1946 Ordinance as amended by the 1949 ordinance was $20 million or any further sums as authorised by a resolution of the Legislative Council.

Between 1946 and 1963, the statutory limit was raised twice by Treasury Circular (FS) 0.2900/6. The first change occurred in 1952 when, by resolution of the Legislative Council on July 2nd. 1952, the limit was raised to $80 million. The other was in 1955 when, by resolution of the Legislative Council on March 31st. 1955, the limit was further raised to $150 million. Both changes were made necessary by the need to increase borrowing through the issue of Treasury Bills in excess of the statutory limit.

Following the inception of Malaysia in 1963, the principal ordinance of 1946 was amended for the second time by an act, the Treasury Bills (Extension) Act 1963 which came into effect on 1st. January 1964. It was "an Act to extend the operation of the Treasury Bills (Local) Ordinance 1946 to all parts of Malaysia and to amend that ordinance."[6] Thus with this Act, the 1946 Ordinance was extended to have effect in Singapore, Sabah and Sarawak. Clause 3 of this Act provided for the amount of Treasury Bills issued and outstanding to be increased to $300 million from the then amount of $150 million. Clause 4 provided that the terms and payment of each loan issued would be determined by the Minister of Finance but transferred the responsibility for the issue and management of Treasury Bills from the Accountant-General to Bank Negara Malaysia. Prior to this Act,

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[4] Amended in 1964 - power taken over by Bank Negara.

[5] 1946 Ordinance.

[6] Government Gazette, 11. 12. 1963.

the issue and management of Treasury Bills were the responsibilities of the Accountant-General of the Treasury. With effect from 1st. January 1964, the management of Treasury Bills issue was taken up by Bank Negara, a service it rendered free to the Government. Not only did this transfer of responsibility relieved the Treasury of an awesome task but this was also a logical development consistent with functions exercised by central banks in other countries. Nevertheless, overall policy and determination of the amount of Treasury Bills to be issued would continue to rest with the Treasury.

A third amendment to the principal ordinance was made in 1965 by the Treasury Bills (Local) (Amendment) Act 1965. This Act amended subsection 2 of the 1946 Ordinance by raising the statutory limit from $300 million to $600 million. The reason for this increase was that the maximum statutory limit of $300 million prior to 1965 was inadequate considering the necessity to raise a further sum of $300 million by the issue of Treasury Bills.

In 1966, the 1946 Ordinance was again amended by the Treasury Bills (Local)(Amendment) Act 1966. Like the 1965 Act, this Act also amended section 2 of the principal ordinance by substituting the words "$1,000 million" for the words "$600 million". Thus by this Act, the statutory limit to the issue and amount outstanding of Treasury Bills was raised from $600 million to $1,000 million, and this limit has remained effective to this day.

CHAPTER III

THE NATURE AND VOLUME OF THE TREASURY BILLS MARKET - SALE OF NEW ISSUES

In chapter II, the various characteristics of the Malaysian Treasury Bills have been laid out. This exercise shall now examine the nature of the Treasury Bills market in Malaysia. Two facets of the market need to be distinguished - the sale of new Malaysian Government Treasury Bills issues, and tradings in outstanding Treasury Bills. This chapter shall deal with the Sale of new issues while the other facet shall be dealt with in the next chapter.

Management of the Malaysian Government Treasury Bills issue by Bank Negara Malaysia

As had been noted in the previous chapter, the management of new issues of Treasury Bills was the responsibility of Bank Negara Malaysia since 1st. January 1964 and that the issues were available "on tap" by anyone having the necessary funds, subject to the various conditions as stipulated in the 1946 Ordinance and its subsequent amendments. The sole supplier of new issues of Treasury Bills was the Malaysian Government while Bank Negara only rendered its service to manage the issues on behalf of the former. Subject to the statutory ceiling of \$1,000 million, the supply of new issues was unlimited so long the demand for them was in the denomination of \$10,000 or multiples of it. The mechanic of the market for new issues shall now be examined before analysing the demand for such issues.

The Mechanics of Issuance of New Issues

Purchase of new issues

The purchase of new issues can be made on every working day from Bank Negara since they are made available on tap, that is, at any time. The operation of Treasury Bills issue does not require personal contacts between the buyer and the issuer, in this case, Bank Negara. Rather the operation is done mainly by telephone. A person or an institution who wishes to make a purchase of new Treasury Bills issue can do so by telephoning the officer-in-charge of issue initially to inquire about the cost of a required amount of purchase. The officer will calculate the cost for the amount of issue which the purchaser wishes to buy.

The cost of a Treasury Bill issue depends on the type of bills required, whether it is a 91-day, 182-day, 273-day or 364-day bill, the appropriate rate of discount on that bill and the amount of purchase the buyer wishes to make. It should be noted that since

Treasury Bills are non-interest bearing security but instead have a discount deducted from the actual amount, the face or par value of the bill is not the cost of the bill. The discount however, is in effect the interest charged by the purchaser for the loan he makes to the government, in the form of the Treasury Bill purchase, until the maturity of the bill. Thus the terms, discount and interest, shall be used as synonymous thereafter.

The first step in calculating the cost of a bill is to find the number of days upon which the interest or discount will be charged. The discount on a bill is calculated according to the number of days between the date of issue and the date of maturity, and no longer in terms of months to avoid maturities on Sundays. Interest accrues from the very date of issue up to one day prior to maturity date. Thus, in the case of a 91-day bill issued on say, 2.1.1969 and to mature on 3.4.1969, interest will accrue for 91 days as follows:

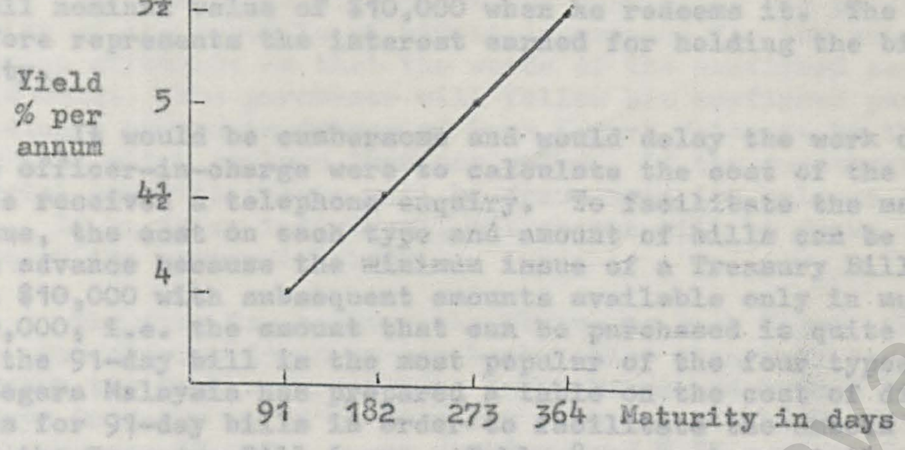
January	2nd.	-	31st.	=	30 days
February	1st.	-	28th.	=	28 days
March	1st.	-	31st.	=	31 days
April	1st.	-	2nd.	=	2 days
					91 days

For a 182-day bill say, issued on 2.2.1969 and to mature on 3.7.1969, interest will start to accrue from the very date of issue up to and including 2.7.1969 thus involving a total of 182 days. If it is a 273-day bill issued on 2.1.1969 and to mature on 2.10.1969, then interest will accrue from the date of issue up to 1st. October 1969 but will exclude 2.1.1969, being the date of maturity. Similarly for a 364-day bill issued on 2.1.1969 and to mature on 1.1.1970, interest will only accrue up to and including 31.12.1969 and will exclude 1.1.1970.

Once the number of days upon which interest will accrue or rather the type of bill - 91, 182, 273 or 364-day bill - is known, the next step is to find the applicable rate of discount. Different rates of discount are set on different types of bills since 1st. August 1968. Prior to this, uniform rates of discount were usually set on all types of bills. With effect from August 1st. 1968, the rates of discount on Malaysian Government Treasury Bills have been set as follows:

Maturity	Rate of Discount
91 days	4% per annum
182 days	$4\frac{1}{2}$% per annum
273 days	5% per annum
364 days	$5\frac{1}{2}$% per annum

The rates therefore increase directly with maturity as shown graphically below:



Once the type of bill and the rate of discount are known, the calculation of the cost will depend finally on the amount or how much of Treasury Bills the purchaser wishes to buy. He may want to purchase $10,000 worth of Treasury Bill, the minimum denomination of a new issue, or any multiples of it. The important factor is that he must state the amount he wants to the officer-in-charge so that the cost of the bill can then be calculated by the officer.

The cost of a Treasury Bill is: Face value, less the discount offered. Therefore it is necessary to calculate the discount in order to get the cost. The formula for calculating the discount on Treasury Bill is as follows:

$$\text{Face value of bill} \times \text{Rate of discount} \times \frac{\text{Number of days of discount}}{365}$$

As an example, take the case where the amount a buyer wishes to purchase is $10,000 for a 91-day bill issued on 2.1.1969 and to mature on 3.4.1969. The current rate of discount applicable to a 91-day bill is 4 per cent per annum. The discount therefore is:

$$\$10{,}000 \times \frac{4}{100} \times \frac{91}{365} = \$99.7260 \text{ cents.}$$

The calculated discount is then deducted from the face value of the bill to get the cost of the bill:

Cost of bill = Face value less discount
= $10,000 - 99.73 = $9,900.27 cents.

Therefore, the payment to be made by the purchaser is \$9,900.27 and not \$10,000. Upon maturity of the bill, the holder will receive the full nominal value of \$10,000 when he redeems it. The discount therefore represents the interest earned for holding the bill till maturity.

It would be cumbersome and would delay the work of issue if the officer-in-charge were to calculate the cost of the bill each time he received a telephone enquiry. To facilitate the management of issue, the cost on each type and amount of bills can be calculated in advance because the minimum issue of a Treasury Bill has been set at \$10,000 with subsequent amounts available only in multiples of \$10,000, i.e. the amount that can be purchased is quite definite. Since the 91-day bill is the most popular of the four types of bills, Bank Negara Malaysia has prepared a table on the cost of different amounts for 91-day bills in order to facilitate the smooth functioning of the Treasury Bill issue. Table 8 presents a similar type table as used by Bank Negara Malaysia. Likewise, the cost for the other types of Treasury Bills, the 182, 273 and 364-day bills can also be calculated. For example, take the case of a 364-day bill issued on 2.1.1969 and to mature on 1.1.1970. With the current rate of discount for 364-day bill at 5½ per cent, the discount for a Treasury Bill issue of \$1 million is \$54,849.32. The cost of purchase therefore is \$945,150.68 cents.

TABLE 8

COST OF 91-DAY TREASURY BILL

Face Value	Discount	Cost
\$10,000	99.7260274	9,900.2739726
20,000	199.4520548	19,800.5479452
30,000	299.1780822	29,700.8219178
40,000	398,9041096	39,601.0958904
50,000	498,6301370	49,501.3698630
60,000	598.3561644	59,401.6438356
70,000	698.0821918	69,301.9178082
80,000	797.8082192	79,202.1917808
90,000	897.5342466	89,102.4657534
100,000	997.260274	99,002.739726
1,000,000	9,972.60274	990,027.39726
100,000,000	997,260.274	99,002,739.726

Source; Bank Negara

The intending buyer will be informed of the cost of the required issue by telephone. The actual purchase can then be consummated over the phone with the buyer confirming the purchase. Integrity of the buyer is of utmost importance for the sale operation to be effective so that the words of the confirmed purchaser are his bonds. The purchaser will follow his confirmed purchase by sending a cheque in favour of Bank Negara Malaysia to the amount of the cost which is less than par value. If the purchaser is a commercial bank its cheque will be drawn upon its balance at Bank Negara. If he is an individual, his cheque will be drawn upon his account at the commercial bank.

The time for sending the cheque to Bank Negara should be noted. For cheques drawn on any banks other than Bank Negara, they must reach the Bank before 1 p.m. on weekdays and before 9 a.m. on Saturdays in order to be in time for clearing at the Clearing House whose hours are 12 - 2 p.m. on weekdays and 9.30 a.m. on Saturdays. Cheques drawn on Bank Negara should reach it before the close of business for the day. The amount paid for the purchase of the Treasury Bill is then credited to the Accountant-General Treasury Bills account.

Purchases of Treasury Bills need not necessarily be made at Bank Negara Malaysia, Kuala Lumpur. They can also be done at branch level. Bank Negara has various branches in major towns of Malaysia - at Penang, Johor Bahru, Kuching, Kota Kinabalu and (prior to April 1967) Singapore. The same procedures as done at the Kuala Lumpur branch apply also to the other branches. Once a Treasury Bill is sold at a branch, that branch will inform the Head Office in Kuala Lumpur either by telephone or by cable so that it can be recorded and credited to the relevant account.

Maturity of Treasury Bills and Redemption

The date of maturity of a Treasury Bill is written on the certificate. Upon maturity i.e. falling due for payment, the holder may present the bill to Bank Negara for redemption or encashment. At Bank Negara, the nominal amount or the face value of the bill will be debited from the Accountant-General Treasury Bill account for the purpose of redeeming the bill, and credited to the clearing account of the bill-holder if it is a commercial bank; if the holder is an individual or wishes to have a cheque, then a cheque will be prepared in his favour. The repayment of Treasury Bills is provided in Clause 5 of the 1946 Ordinance: "The Financial Secretary shall appropriate out of the general revenues of the Malayan Union the necessary sum to pay the principal represented by the Treasury Bills when they fall due."[1]

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[1]Government Gazette, 24th. June 1946.

Treasury Bill, being a negotiable instrument, can pass from one owner to another by an endorsement on the reverse or flip side of the Treasury Bill certificate. Thus it is possible that the person who initially purchases the bill from Bank Negara may not be presenting the bill upon maturity if he has transferred it to someone else. In other words, the person who finally presents the bill for redemption upon maturity of the bill may not be the same person who initially purchases the bill at the date of issue from Bank Negara Malaysia.

Redemption of a matured Treasury Bill may also be done at one of the branches of Bank Negara. The bill-holder will present the bill to the branch who, after checking, will then forward it to the Head Office at Kuala Lumpur. On maturity date the face value of the bill will be credited to the Interbranch account who will then prepare a cheque to the holder.

In cases where maturity date falls on a holiday, the bill will be redeemed, if the holder wishes so, and the proceeds paid on the first working day after the holiday. For example, a bill matures on Thursday, February 27th. 1969 which is a holiday, being Hari Raya Haji. If the holder wishes to redeem it then he can do so on Friday 28th. February 1969, the day following the date of maturity. The date of maturity does not mean that the holder must present the bill to Bank Negara for redemption. When to redeem a matured bill is at the discretion of the owner. He can redeem it days after the bill has matured, but this is an unwise action which will bring no benefit to the holder of the matured bill since a matured bill does not carry any discount unless it is renewed. It is therefore normal, though not a compulsion, to redeem a bill on the very date of maturity.

Maturity of Treasury Bills and Renewal

Matured Treasury Bills may not necessarily be meant for redemption. If the holder wishes it, a matured Treasury bill may be renewed for yet another term from the date of maturity. The process of renewal will be done by the officer-in-charge at Bank Negara. Instead of making two sets of vouchers as in the case of redemption, a continuation of operation is made so that the bill-holder will only receive the discount for the renewed operation of the Treasury Bill. Thus it is not necessary for the holder to be paid the full proceeds of the matured bill by Bank Negara and then for him to make the payment back to Bank Negara for the cost of the renewed bill. Only the proceeds of the discount earned is paid to him.

A Treasury Bill for renewal is endorsed in the same way as a Treasury Bill for redemption. For example, a maturing bill of face value $10,000 in need of renewal will be endorsed as follows;

Proceeds of bill (maturing)	=	$10,000.00
Cost of new (renewed) bill for $10,000 for 91 days maturing on	=	9,900.27
Discount earned		$ 99.73

Thus in this case, only $99.73 will be paid to the person who wishes to have his matured bill renewed. If the renewer is a commercial bank, the discount is credited to his clearing account. For a non-bank holder, a cheque in his favour is given.

Where the maturity date of say, a 91-day bill meant for renewal falls on a holiday, it is renewed on the next working day for 92 days instead of 91 days in order to include the holiday. This means that where the maturity date of a bill is a holiday and the bill is to be renewed, the renewal will run from the date of maturity and not from the next working day after the holiday. For example, take the case of a bill that matures on February 27th. 1969 which is a holiday. If it is for redemption this can be done on February 28th. 1969. If it is for renewal, this is done also on February 28th. 1969, but the maturity period will begin not from February 28th but from February 27th., the holiday.

Renewal of a matured Treasury Bill can also be done at branch level of Bank Negara. In this case the branch will send the bill to the Accounting and Investment Department of Bank Negara in Kuala Lumpur, with instructions for it to be renewed.

Safe Custody Of Treasury Bills

Besides managing the issue of Treasury Bills, Bank Negara provides the service of safe custody for newly issued Treasury Bills. This service of safe custody is rendered free of any charge to commercial banks in two forms - voluntary and compulsory. Commercial banks may place their holdings of Treasury Bills voluntarily at Bank Negara. On the compulsory type, commercial banks are required, under the Banking Department Ordinance, to deposit some Government securities including Treasury Bills with Bank Negara.

The mechanics of issuance of new bills have thus been dealt. It is imperative now to look at the purchasers or subscribers of the new issues of Treasury Bills.

The Demand For New Issues

Who form the principal buyers of new Treasury Bills issues? Demand for new issues originates with five groups - commercial banks, financial and other institutions, statutory bodies, Bank Negara and State Governments. There are various reasons behind their demand for Treasury Bills but most important and common to all is that Treasury Bills provide an avenue for safe, short-term, liquid investment.

Commercial Banks

By far and large, the highest demand for new issues of the Malaysian Government Treasury Bills comes from the numerous commercial banks in the country. There are two main reasons behind the demand for new issues by commercial banks. Firstly, commercial banks' interest in holding Treasury Bills arises because of the availability of excess balances in the banks which if not utilised, will remain unproductive over the short period. Treasury Bills present an avenue into which these excess reserves can be channelled for productive investment on short-term and even for overnight basis. In Treasury Bills commercial banks find not just the characteristic of liquidity which is essential to its operation but also that of profitability. In this way Treasury Bills can form a second-line of reserve to which banks can turn to whenever their cash reserves tend to be depleted. For these reasons, commercial banks have interest in Treasury Bills.

Secondly, it is required by law that all commercial banks in Malaysia maintain a minimum proportion of their deposits in liquid assets. This requirement is known among banking circles as the minimum liquidity ratio requirement. Of this ratio, a certain proportion has to be in the form of Government securities of greater than three month maturity. In 1961, the minimum liquidity ratio was 25 per cent after being raised from the original ratio of 20 per cent in a bid to curb speculative lending and to regulate selective lendings by banks. Of this ratio, the proportion to be held in the form of Government securities of greater than three months maturity was 5 per cent. In 1965 another change in the minimum liquidity requirement was instituted when the ratio was reduced to 20 per cent. Of this ratio at least 10 per cent should constitute local liquid assets and Government securities. Treasury Bills, being short term in nature, are in a position to fulfil this requirement. Consequently, the observance of the minimum liquidity requirement leads to increased demand for treasury bills by, and changes the asset structure of, commercial banks.

The demand for treasury bills by commercial banks is shown by their holdings of treasury bills from year to year. Table 9 shows the amount of Treasury Bills held by all commercial banks in Malaysia since 1959.

Between 1959 and 1964, the volume of Treasury Bills held by banks in Malaysia was not substantial and rarely exceeded $40 million. As a proportion of total investments, Treasury Bills formed between 16.5 to 31.7 per cent of total investments. This was probably because commercial banks had not then realised the usefulness of Treasury Bills as a form of liquid investment, and also because the important change in the minimum liquidity requirement came later in February 1965.

TABLE 9

HOLDINGS OF TREASURY BILLS BY MALAYSIAN
COMMERCIAL BANKS, 1959-1968

Year	Treasury Bills	Total Investments	Total Assets	Treasury Bill as a % of Total Investments
1959	20.5	86.0	1,159.6	23.8
1960	33.9	106.9	1,369.6	31.7
1961	32.1	107.9	1,517.0	29.7
1962	17.6	106.8	1,718.5	16.5
1963	41.2	163.7	1,886.2	25.2
1964	29.0	139.4	2,136.4	20.8
1965	105.7	210.4	2,264.2	50.2
1966	225.6	n.a.	2,760.5	n.a.
1967	437.8	623.0	3,016.3	70.3
1968	604	n.a.	n.a.	n.a.

Source: Bank Negara, Monthly Statistical Bulletin of Malaysia, February 1968.

Since 1965, the demand for Treasury Bills by commercial banks, as reflected in their holdings of Treasury Bills, grew fairly rapidly. In 1965, the observance of the change in the minimum liquidity requirement resulted in a rise in the holdings of Treasury Bills by banks from $29 million in 1964 to $105.7 million as at the end of the year. This amount is equivalent to 50.2 per cent of total investment by banks in 1965. In relation to bills issued and outstanding for the year, holdings of Treasury Bills by commercial banks in Malaysia and Singapore constituted 67.1 per cent or $302 million of the total of $449.8 million.

The demand for Treasury Bills by banks continued to increase in the following years from $225.6 million in 1966 to $437.8 million in 1967 and to $480.7 million as at October 1968. Their 1967 proportion of Treasury Bills to total investments was 70.3 per cent which is fairly significant indeed. In 1966, commercial banks in Malaysia and Singapore combined held $415.9 million or 71.9 per cent of the outstanding total of $578,1 million, while in 1967, the holdings of Treasury Bills by Malaysian banks alone formed 68 per cent of bills outstanding.

The increase in the demand for Treasury Bills by banks after 1965 can very much be attributed to the observance of the minimum liquidity ratio requirement by commercial banks. Further, for the past years, commercial bank deposits had been increasing at a steady rate of 12 per cent annually and since commercial banks had to observe the liquidity requirement, their demand for, and hence their holdings of, Treasury Bills inevitably increased.

There are other factors contributing to the rise in the demand for Treasury Bills by commercial banks. One factor is the imposition of the local asset requirement on foreign banks operating in Malaysia. These foreign banks are required to maintain a minimum of $2 million of investment in local assets. Of this requirement, a part is met by investments in Malaysian Government Treasury Bills and this increases the demand for bills by banks. Another reason for the increased demand for Treasury Bills by banks especially in 1968, can be attributed to the recovery of the Malaysian economy after the "slump" in 1966 and 1967 due to falling rubber prices. Increased flows of exports and the rise in rubber prices in 1968 led to increased foreign exchange earnings of commercial banks. These banks sold their foreign exchange to Bank Negara and utilised the proceeds by investing in the Malaysian Government Treasury Bills issues. Consequently, the demand for bills by commercial banks continued to increase.

Virtually all the commercial banks in Malaysia holds Treasury Bills as part of their liquid investments. The breakdown in the demand for bills by the various banks in 1968 is shown in Table 10.

The demand for Treasury Bills as reflected by the holdings of Treasury Bills of the three major banks in Table 11 and the Mercantile Bank, was higher in 1968 when compared to that of 1967. This is shown in Table 11.

All the four banks showed increases in their holdings of Treasury Bills due to the various reasons mentioned earlier. In the past years, the demand and response of Asian banks to the issue of Treasury Bills were encouraging. Included in "Other Banks" in Table 10 were Asian Banks such as the Lee Wah Bank, Chung Khiaw Bank, Kwong Yik Bank, Indian Oversea Bank, and many others.

Since the opening of the Kuching Branch of Bank Negara in Sarawak and the Kota Kinabalu Branch in Sabah, and with them the facilities to transact in Treasury Bills, commercial banks in East Malaysia began to purchase Treasury Bills increasingly, a source which prior to the establishment of these branches had remained untapped. In 1967, the commercial banks in Sarawak held Treasury Bills worth $4.82 million and together with holdings by Sabah banks, the amount rose to $8.6 million in 1968. The demand for Treasury Bills by East Malaysia banks may well increase in the future when commercial banks begin to realise on the advantages of holding Treasury Bills.

TABLE 10

TREASURY BILL HOLDINGS BY INDIVIDUAL COMMERCIAL BANKS 1968

	$ Million	
Banks in Kuala Lumpur:		
Chartered Bank	174.4	
Malayan Banking Limited	145.0	
HongKong and Shanghai Banking Corporation	82.2	
Oversea Chinese Banking Corporation Limited	68.0	
United Malayan Banking Corporation Limited	45.0	
Mercantile Bank Limited	44.55	
Other Banks in K.L.	57.48	616.63
Banks in Other Parts Of Malaysia:		
(United Overseas Bank Limited, Kota Kinabalu Southern Banking Limited, Penang; Hock Hua Banks in Sabah and Sarawak, etc.)		8.55
Total Holdings By All Banks		$625.18

Source; Bank Negara

TABLE 11

HOLDINGS OF TREASURY BILLS BY FOUR COMMERCIAL BANKS, 1967-1968

	July 1967	15.10.1967	31.12.1968
		($ Million)	
Chartered Bank	120.6	136.1	174.4
Malayan Banking Ltd.	56.3	68.1	145.0
HongKong and Shanghai Banking Corporation	57.1	72.7	82.2
Mercantile Bank Ltd.	6.5	14.4	44.6

Source: Bank Negara

On the whole, commercial banks present the greatest demand for Treasury Bills. They account for the main portion of Treasury Bills outstanding every year and the proportion they hold has never been lower than two-thirds of the total issue outstanding. In 1968, the percentage was 75 per cent. On that year too, their holdings of Treasury Bills accounted for 66.2 per cent of their total liquid assets thereby reflecting the importance of Treasury Bills as a source of liquidity and profitability to commercial banks.

Financial and Other Institutions

The next important source of demand for Treasury Bills comes from the various financial and other nonbank institutions in the country. Financial institutions in Malaysia include Short Deposit (M) Limited, Malayan Industrial Development Finance Berhad (MIDFL) and other finance companies in Malaysia, while "other institutions" include insurance companies, Provident funds and Trust funds. Virtually all these institutions are situated in Kuala Lumpur, the "London or New York of Malaysia", where much financial tradings are activated and consummated.

In running their business, these institutions maintain some part of their assets in short-term securities, particularly Treasury Bills, in order to have not only liquidity but at the same time some profitability. As a matter of fact, the Short Deposit (M) Limited, invests all their funds solely in Treasury Bills and other short-term Government securities. Other than that, financial institutions are mainly associated with the capital market i.e. the market for long-term funds, and only involved themselves with the money market, in particular the Treasury Bills market, to get some liquidity or due to some other reasons such as to invest any temporary funds, or when the demand for long-term funds appears to be inadequate, or when long-term investment opportunities are not attractive to make investment worthwhile. Thus the involvement of financial institutions in the Treasury Bills market is limited to the extent of liquidity required and to the extent that the capital market may not be advantageous in all respects every time. Table 12 shows the holdings of Treasury Bills by financial and other institutions. In 1968 the amount held by financial institutions and other institutions accounted for 10 per cent and 1 per cent respectively of the total volume of Treasury Bills outstanding for the year.

Statutory Bodies

A third source of demand for Treasury Bills comes from the various statutory bodies in the country. These bodies invest temporary excess funds in bills in order to earn a profit yet maintaining the desired liquidity. Among the statutory bodies that invest funds in Treasury Bills, the important ones are the Rubber Industry (Replanting) Board, the Penang Port Commission and the University of Malaya. The holdings of Treasury Bills by statutory bodies accounted for 7 per cent of the total amount issued and outstanding

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TABLE 12

HOLDINGS OF TREASURY BILLS BY FINANCIAL AND OTHER INSTITUTIONS, 1968

	$ Million	
Financial Institutions:		
Short Deposit (M) Limited	53.230	
Malayan Industrial Development Finance Berhad	12.930	
Credit Corporation of Malaysia, Kuching	0.300	
Malayan Industrial Estates Limited	0.190	
Malaysian Borneo Finance Corporation Limited, Kota Kinabalu	0.200	66.67
Other Institutions:		
Insurance companies:		
Peng Min Insurance	0.20	
United Malayan Insurance Company, Ltd.	0.30	0.50
Provident Funds:		
Chartered Bank (M) Trustee Limited	0.50	
Central Mercantile Marine Fund	0.30	
Universiti Malaya Academic Staff Provident Fund	0.12	
SESCO Provident Fund	0.05	
Trust Funds:		
(National Defence Fund, Public Trustee Malaysia Common Fund Account, Custodian of Enemy Property)	0.82	1.79
		$68.96

Source: Bank Negara

TABLE 13

HOLDINGS OF TREASURY BILLS BY STATUTORY BODIES, 1968

	$ Million
Rubber Industry (Replanting) Board	16.30
Penang Port Commission	15.90
University of Malaya	8.05
Malayan Rubber Fund Board	1.50
Malayan Railway	0.25
	$42.00

Source: Bank Negara

State Governments

State Governments in Malaysia also subscribe to the issue of Treasury Bills by the Government. Temporary excess funds occur in the state governments due to the fluctuating nature of the state revenue while their expenditures remain fairly predictable and steady in amount. The state governments utilise these temporary funds to purchase new issues of Treasury Bills and they present the only subscription to the 12-month or other long-term Treasury Bills prior to 1968. However, not all the state governments in Malaysia invest funds in Treasury Bills. In 1968, only three state governments - Selangor, Sabah and Penang - invest funds in Treasury Bills, as shown in Table 14.

TABLE 14

HOLDINGS OF TREASURY BILLS BY STATE GOVERNMENTS, 1968

	$ Million
Accountant-General Sabah	6.0
State Treasurer Selangor	10.0
State Treasurer Pahang	0.5
	$16.5

Source: Bank Negara

Bank Negara Malaysia

The final group from which demand for Treasury Bills originates is Bank Negara Malaysia itself. The demand for bills by Bank Negara is not so much to invest funds in short-term Treasury Bills for the purpose of getting profit but mainly to accomodate for any lack of demand for Treasury Bills by other sources. A more important reason is the policy of Bank Negara to assist in the Treasury Bills market by maintaining it own portfolio of Treasury Bills which it uses for purposes of own transactions. Prior to 1965, the demand for new issues by Bank Negara increased steadily from \$2.5 million in 1959 to \$139.5 million in 1965. However, the demand by Bank Negara steadily dropped in recent years and in 1968 the amount purchased was only \$26 million or 4 per cent of the total bills outstanding for the year. The holdings of Treasury Bills by Bank Negara will be studied again in a later chapter.

On the whole the demand for new issues increases rapidly over the past years. Since Treasury Bills are available on tap, the result is a rapid increase in the sale of new issues. In other words, the market for new issues has been experiencing an expansionary trend. Therefore, an inspection of the development in the volume of Treasury Bills issued and outstanding over the past years will reveal and bring to the forth, the development in the market for new Treasury Bills issues in Malaysia.

Development In Treasury Bills Issued And Outstanding

The development in the volume outstanding is the index with which the progress in the Treasury Bills market can be examined.

The issue of Treasury Bills began officially in 1964 with the enactment of the Treasury Bills (Local) Ordinance 1946. The amount issued and outstanding thence-on was not significant until after the establishment of the Central Bank of Malaya in 1959. The amount issued and outstanding prior to 1960 never exceeded the \$100 million mark and often tended to fluctuate greatly from year to year. For instance, in 1954 the amount outstanding was \$94 million; in 1955 it fell sharply to \$11 million; then in 1956 the volume rose again to \$88 million. There was no steady development in the volume outstanding prior to 1959; rather the development was haphazard and not as striking as it was after 1959. It was only after the formation of Bank Negara that the market for Treasury Bills underwent a steady if not rapid progress as evidenced by the increases in the amount of Treasury Bills outstanding.

Although much had been said in Chapter 1 about how the budgetary deficits had resulted in the increase in the domestic national debt, particularly the Treasury Bills, to preclude ourselves into thinking that there existed no other reasons for the rise in the bills issue would mean a mistaken judgement on our part. There is yet another important factor that led to the rise and development in Treasury Bills outstanding and this was the policy of the Government and Bank Negara to establish a money market in Malaysia i.e. a market for short-term funds. Prior to 1959, there was no organised money market in the country. The Government therefore was resolved to correct this inadequacy in the Malaysian economy which on the contrary did not lack a developed financial structure. "The most likely instrument to be used as the basis of a money market is, the Federation Government three-month Treasury Bills..."[2] Treasury Bills were therefore adopted as foundation for a short-term market for funds in Malaysia. The result of the adoption of this policy was to increase the volume of Treasury Bills outstanding and hence its market between 1959 and 1968.

The development in the amount of Treasury Bills issued and outstanding is shown in Table 15. Its development between 1959 and 1963, if not marked by slight fluctuations, was otherwise steady. The amount outstanding at the end of 1959 was $94.6 million. This amount increased to $112.9 million in 1960, an increase of $19.3 million or 18.3 per cent over the previous year. However, in 1962, the amount outstanding slightly fell to $106 million, $6.9 million or 6.1 per cent less than that in 1961. Nevertheless from 1962 onwards, there was an upward trend in the amount of Treasury Bills outstanding from year to year largely due to the observance of the minimum liquidity ratio of 25 per cent and the presence of Bank Negara rediscounting facilities which increased the marketability and liquidity of Treasury Bills, making them an attractive form of short-term investment. The amount issued in 1963 amounted to $518 million those redeemed totalled $479 million giving an amount of $148 million outstanding. Until the end of 1963, the increase in Treasury Bills outstanding was only gradual so that between 1959 and 1963 the change in the amount of Treasury Bills outstanding was only by $43.6 million.

The development in the amount of Treasury Bills outstanding after 1963 took a sudden upward pace and increased rapidly from year to year up to 1968. This trend can clearly be seen from Figure 8. In 1964, the Treasury Bills outstanding rose to to $221.5 million from the 1963 total of $148.2 million, an increase by $73.3 million or 49.4 per cent which formed a significant proportion of the year's Gross Domestic Borrowing of $212 million. On this new development, Bank Negara reported: "Treasury Bills have not in the past featured to any great extent in short-term Government financing but they are likely to become more important in future."[3]

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[2]Bank Negara, Annual Report, 1959, page 10.

[3]Bank Negara, Annual Report, 1964, page 28.

TABLE 15

DEVELOPMENT IN TREASURY BILLS OUTSTANDING, 1951-1968

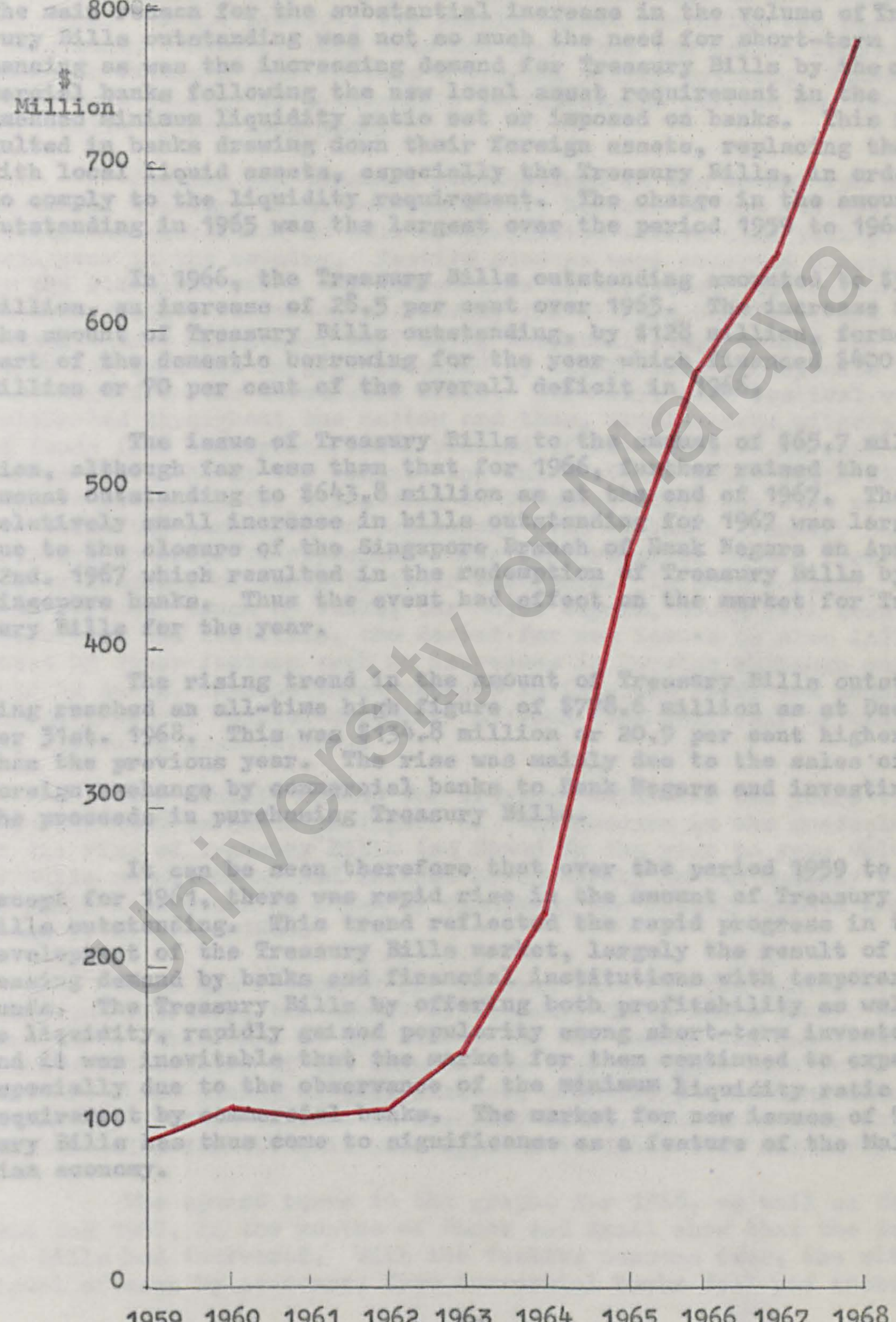
($ Million)

Year	Amount Issued	Amount Redeemed	Amount Outstanding	Absolute Change	Percentage Change
1951	-	-	48	-	-
1952	-	-	49	+ 1	+ 2.1
1953	-	-	89	+ 40	+ 81.6
1954	-	-	94	+ 5	+ 5.6
1955	-	-	11	- 83	- 88.3
1956	-	-	88	+ 77	+700.0
1957	-	-	51	- 37	- 42.0
1958	-	-	71	+ 20	+ 39.2
1959	-	-	94.6	+ 23.2	33.8
1960	-	-	112.9	+ 18.3	19.3
1961	-	-	106.0	- 6.9	- 6.1
1962	341	338	109.3	+ 3.3	3.1
1963	518	479	148.2	+ 38.9	35.7
1964	-	-	221.5	+ 73.3	49.4
1965	-	-	449.8	+228.3	102.8
1966	-	-	578.1	+128.3	28.5
1967	331.4	465.7	643.8	+ 65.7	11.4
1968	601.1	466.3	778.6	+134.8	20.9

Source: Bank Negara, and Ekonomi Volume 9, December 1968.

FIGURE 8

CUMULATIVE CHANGE IN TREASURY BILLS OUTSTANDING, 1959-1968



Source: Table 15

The market for new issues expanded further in 1965. The amount outstanding doubled to $449.8 million following the raising of a sum of $228 million by the issue of Treasury Bills in the domestic market. Percentage-wise the increase was by 102.8 per cent. The main reason for the substantial increase in the volume of Treasury Bills outstanding was not so much the need for short-term financing as was the increasing demand for Treasury Bills by the commercial banks following the new local asset requirement in the amended minimum liquidity ratio set or imposed on banks. This resulted in banks drawing down their foreign assets, replacing them with local liquid assets, especially the Treasury Bills, in order to comply to the liquidity requirement. The change in the amount outstanding in 1965 was the largest over the period 1959 to 1968.

In 1966, the Treasury Bills outstanding amounted to $578 million, an increase of 28.5 per cent over 1965. The increase in the amount of Treasury Bills outstanding, by $128 million, formed part of the domestic borrowing for the year which financed $400 million or 70 per cent of the overall deficit in 1966.

The issue of Treasury Bills to the amount of $65.7 million, although far less than that for 1966, further raised the amount outstanding to $643.8 million as at the end of 1967. The relatively small increase in bills outstanding for 1967 was largely due to the closure of the Singapore Branch of Bank Negara on April 22nd. 1967 which resulted in the redemption of Treasury Bills by Singapore banks. Thus the event had effect on the market for Treasury Bills for the year.

The rising trend in the amount of Treasury Bills outstanding reached an all-time high figure of $778.6 million as at December 31st. 1968. This was $134.8 million or 20.9 per cent higher than the previous year. The rise was mainly due to the sales of foreign exchange by commercial banks to Bank Negara and investing the proceeds in purchasing Treasury Bills.

It can be seen therefore that over the period 1959 to 1968, except for 1961, there was rapid rise in the amount of Treasury Bills outstanding. This trend reflected the rapid progress in the development of the Treasury Bills market, largely the result of increasing demand by banks and financial institutions with temporary funds. The Treasury Bills by offering both profitability as well as liquidity, rapidly gained popularity among short-term investors and it was inevitable that the market for them continued to expand especially due to the observance of the minimum liquidity ratio requirement by commercial banks. The market for new issues of Treasury Bills has thus come to significance as a feature of the Malaysian economy.

The Monthly Demand For New Issues

The market for new issues, as was noted, had been expanding from year to year eversince the establishment of Bank Negara Malaysia. On the average, the yearly demand for bills had been increasing. However, this does not mean that the demand from month-to-month within a year follows a gradual rising pattern. Rather there is a feature of seasonality in the demand pattern for Treasury Bills within each year.

Monthly and seasonal fluctuations in the demand for new issues of Treasury Bills occured mainly because of the various festivals and occasional as well as unexpected events that took place each year in the country. Festive seasons were observed annually by the different races and communities in Malaysia. The celebration of each festive occasion, especially the Chinese New Year, and to a lesser extent Christmas, Hari Raya, Deepavali etc., called for finance and this was largely obtained by withdrawals of deposits by customers from the commercial banks. Normally, each festival was celebrated throughout the nation and thus, simultaneous withdrawals of funds from commercial banks reduced if not depleted the cash reserves available at the banks. Any excess funds which would otherwise be available for investment in Treasury Bills was also used up, and often the banks had to rediscount some of their Treasury Bills holdings in order to replenish their cash reserves in the face of high withdrawal of funds by their customers. In such periods, demand for new issues by banks, the major buyers, would fall down. Other than the festivals, the demand for new issues is also influenced by other factors such as increases in foreign exchange earnings by banks, international changes in interest rates and demand for purposes of "window-dressing" at each financial year by banks and financial institutions.

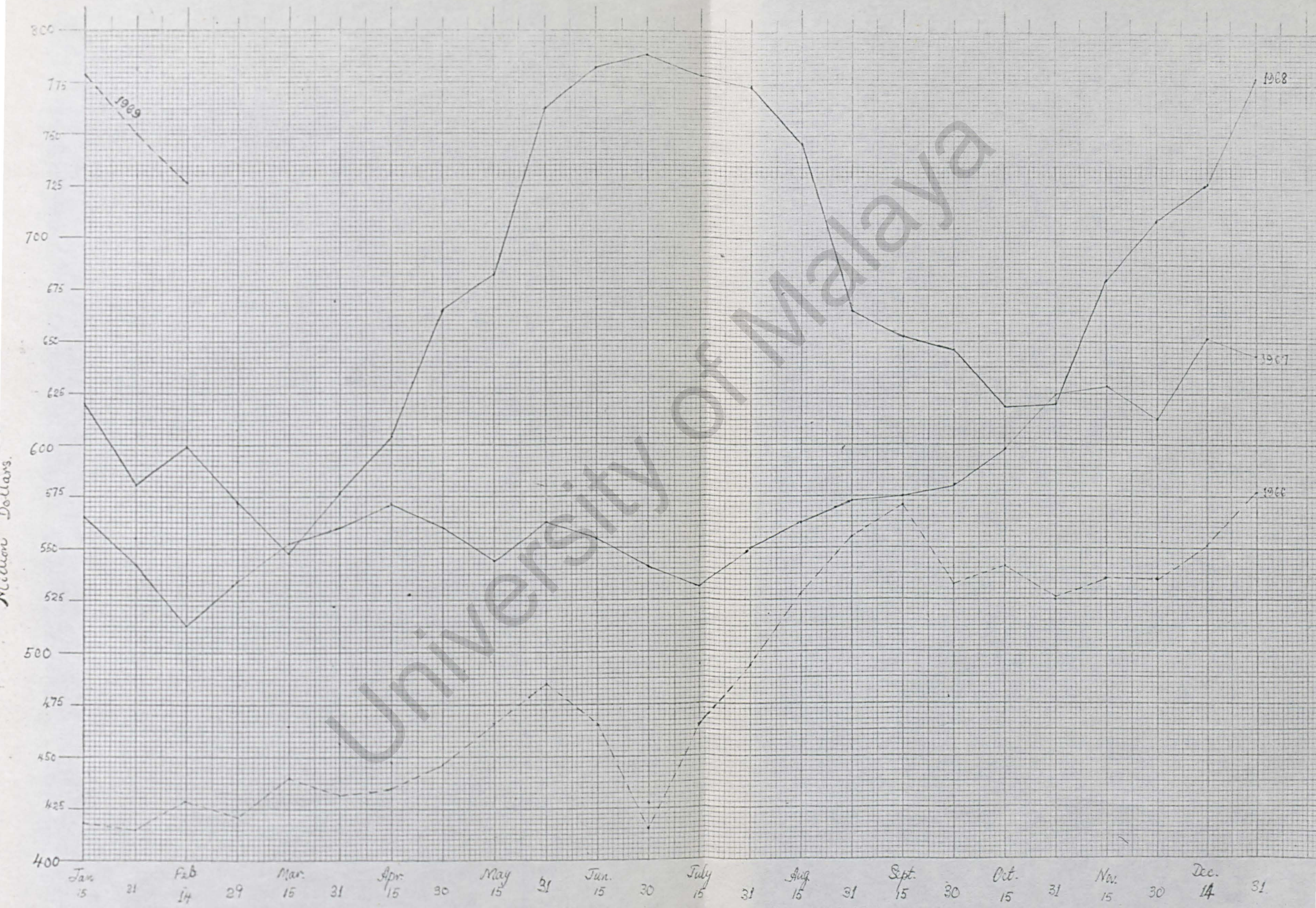
The monthly demand for Treasury Bills for the years 1966, 1967 and 1968 is shown in Figure 9. The absence in the gradualness in the rise of Treasury Bills (as found in the year to year volume of bills outstanding) and instead irregularity in the monthly volume of bills issued can be shown by examining the monthly demand for Treasury Bills in 1968.

From the figure it can be seen that for the months of January and February, the amount of Treasury Bills issue took a downward turn. This fall in the demand for new issues was due to the festive celebration of the Chinese New Year and Hari Raya Puasa which required plenty of cash-finance, ultimately diverting excess funds away from investment in Treasury Bills. Not only does this pattern holds for 1968, it also applies to 1966, 1967 and early 1969.

The upward turns in the graphs for 1968, as well as for 1966 and 1967, in the months of March and April show that the demand for bills had increased. With the festive seasons over, the withdrawal of cash by customers from commercial banks fell and instead

FIGURE 9

GOVERNMENT OF MALAYSIA TREASURY BILLS ISSUE.



Source: Bank Negara

they began to deposit their funds into the banks thereby enabling them to purchase more Treasury Bills from Bank Negara. This accounted for the rise in bills issue.

The graph for mid-1968 differs however from those for 1966 and 1967. While the new issues in mid-1966 and mid-1967 fell in amount due to falling demand, the issue in mid-1968 rose sharply especially during the months of May, June and July due to several factors. Firstly, with improving economic conditions and higher export earnings, the holdings of foreign exchange by commercial banks began to increase. These were sold to Bank Negara and the proceeds were utilised by the commercial banks to purchase Treasury Bills. Secondly, there was the feeling of uncertainty over the strength of Sterling during this period and this caused considerable Sterling funds to be diverted into investments in new issues of Treasury Bills. Another international factor which resulted in increased demand for Malaysian bills in mid-1968 was the investment position of Treasury Bills which prevailed in Singapore vis-a-vis Malaysia. In May 1968, the Singapore Treasury Bill rate was reduced to 4 per cent while that for Malaysia remained at 5½ per cent. The yield on Malaysian bills was therefore more attractive than that on Singapore's and this attracted funds from Singapore for investment in Malaysian bills. Furthermore, commercial banks, anticipating a similar reduction in Malaysian bill rate, increased their investment in Malaysian bills in order to "make hay while the sun still shines." Finally, increased demand in this period could also be attributed to the purchases by commercial banks for purposes of "window-dressing" at their mid-financial year in June.

The graph for 1968 took a downward turn and fell sharply in August, September and October due to reduced demand by buyers, especially the commercial banks. This was due to the need by banks and financial institutions to finance withdrawal of deposits by customers, the increase in loans and advances to clients, and additional investments in other Government securities of three and five-year maturities. There was also a halt in the inflow of funds from Singapore when the Singapore bill rate was raised from 4 per cent to 5 per cent on August 10th. 1968, supplemented by the reduction in the Malaysian bill rate from 5½ per cent to 4½ per cent on June 10th 1968. Previously, the higher rate offered on Malaysian bills had attracted considerable funds from Singapore.

In November and December, continued improvement in rubber prices led to increased foreign exchange earnings by banks. These foreign exchange were sold to Bank Negara and the proceeds utilised to purchase Treasury Bills thus accounting for the rapid rise in bills issue in the two months. In December, commercial banks further purchased Treasury Bills for the purpose of "window-dressing" for their end-financial year and this caused the rise in bill issue in late December.

The analysis on the monthly pattern of demand for Treasury Bills in 1968 exemplifies the irregularity in the month-to-month demand for, and hence in the issue of bills. Nevertheless trendwise, the volume is always on the increase as is evidence by the higher volume of issue at the end of the year than at the beginning of the year. The monthly pattern in the issue of bills is largely influenced by the actions and decisions taken by the commercial banks who were the principal source of demand for new issues of Treasury Bills. It would be uncorrect therefore to think that the monthly demand for bills to be always on the increase as was the case for the yearly demand eversince 1959.

CHAPTER IV

THE NATURE AND VOLUME OF THE TREASURY BILLS MARKET - TRADING IN OUTSTANDING TREASURY BILLS

The second facet of the Treasury Bills market consists of tradings in outstanding Treasury Bills, the other facet being the sale of new issues. Bills which have been issued by the Government through Bank Negara and which are still not yet redeemed, form the outstanding bills in the country. Outstanding bills are held for short periods by the various purchasers, ranging from commercial banks to individuals. Like the newly issued bills, there exists a market for outstanding Treasury Bills which means that outstanding bills can be traded among intending sellers and buyers.

The market for outstanding Treasury Bills is largely centred in Kuala Lumpur where almost all the buyers and sellers are situated. Outside Kuala Lumpur, the market is fairly thin, being confined to the various branches of Bank Negara and the commercial banks. There is no single or specific place where tradings can be consummated; however, the bulk of the transactions is mainly done at Bank Negara Kuala Lumpur. Besides that, the market for outstanding bills is also available at Short Deposit (M) Limited, and among the various commercial banks and non-bank institutions that are largely centred in Kuala Lumpur.

Buyers and Sellers

Who are the buyers and sellers of outstanding Treasury Bills? Both sales and purchases of outstanding issues originate from three main groups: commercial banks, nonbank institutions and Bank Negara.

Commercial Banks

The factors which influence the commercial banks to trade in outstanding bills apparently are similar to those for new issues. Commercial banks' transactions in outstanding issues reflect their considerations between liquidity and profitability. As a bank it has to provide due concern to the needs and withdrawal of deposits by its customers while as a commercial entity it has to consider the scope of profit-making. For the purpose of accomodating the daily withdrawals of deposits by its clients, the commercial banks maintain a cash ratio of 4 per cent knowing that normally not all clients will withdraw cash simultaneously on the same day. Nevertheless there arise times when withdrawals by clients tend to deplete the normal cash reserves in the till, for example during the festive season of the Chinese New Year. Other factors also affect the cash reserve position, such as deposit shifts among banks, inflow and outflow of currency, gold imports and exports (and in the United States, Treasury operations and the Federal Reserve open market operations). The problem facing the commercial banks as regards to reserve positions is well described by Anderson: "The ebb and flow of funds through bank reserve accounts pose a problem for the banker - what to do with the excess reserves that he may have for only a short time, and how to be in a position to meet temporary deficiencies in his reserve account? Excess reserves earn no income. On the other hand, if excess reserves are invested in securities that fluctuate in price, the banker would incur a loss if forced to sell for less than the purchase price to meet a reserve deficiency. The Treasury Bill offers a partial solution , at least, to this problem. It provides some return, although the yield is usually lower than on longer maturities, and a bill can be sold at any time with a minimum risk of loss from a price change."[1]

Treasury Bills therefore present a solution to the need by banks for liquidity, profitability and safety of investment. Treasury Bills can form a second-line reserve in support of the cash reserve ratio held by commercial banks. As second-line reserves, the Treasury Bills can be readily converted to cash by selling them off when the needs arise. For this reason, Malaysian commercial banks have found it suitable to invest a portion of their funds in Treasury Bills. Further, there is also the minimum liquidity ratio of 20 per cent the observance of which leads to increased holdings of bills by banks. In 1968, commercial banks holdings of Treasury Bills accounted for 66.2 per cent of their total liquid assets of $912 million, thus showing the significance of Treasury Bills at the banks.

Very few indexes are available with which one can gauge the extent of transactions in outstanding Treasury Bills by commercial banks, or for that matter, by any other institutions and bodies. Against such limitation and the difficulty involved in trying to compile data on transactions in bills, one has to make do with the best index that is available in the country unless sufficient time is given for one to carry out a research on the volume of transactions in outstanding bills by the various buyers and sellers. However, for an academic exercise where time and availability of data are crucial problems, the best existing data available will have to be used as an index and for that, the data compiled by Bank Negara is as yet unchallenged in its reliability and comprehensiveness. Largely as a result of its ready rediscounting facility, Bank Negara undertakes the bulk of the volume of tradings in outstanding Treasury Bills. Thus the transactions in outstanding bills by buyers and sellers at Bank Negara are reliable enough to reflect the extent of tradings done by each of the groups of buyers and sellers.

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[1]Clay J. Anderson, The Treasury Bill Market, in Ritter's "Money & Economic Activity", Cambridge, 1961, page 112.

Tradings in outstanding bills by commercial banks have, on the average, increased over the past years. This can be seen from Table 16. The amount of bills rediscounted by commercial banks at Bank Negara represents the bulk of the amount of bills they sold. Since 1963, the volume of bills they rediscount at Bank Negara has on the whole increased fairly rapidly. In 1963, the volume sold was only \$43.8 million; this rose to \$171.3 million in 1965. By 1968, the amount sold by banks reached the substantial figure of \$499.8 million, reflecting the increasing use made by banks of the rediscounting facilities provided by Bank Negara, and their frequent needs for liquidity.

TABLE 16

COMMERCIAL BANKS TRANSACTIONS IN TREASURY BILLS
AT BANK NEGARA MALAYSIA, 1959-1968
(\$ Million)

Year	Amount Rediscounted	Amount Purchased
1959	2.2	-
1960	5.6	3.4
1961	17.1	50.3
1962	7.2	29.0
1963	43.8	71.8
1964	97.2	90.9
1965	171.3	121.5
1966	402.7	61.5
1967	469.6	80.8
1968	499.8	229.2

Source: Bank Negara.

The amount of outstanding bills purchased by commercial banks from Bank Negara, on the other hand, was not only lesser than the amount sold, but also tended to be irregular in terms of its development from year to year, especially during the period of 1961 to 1966. The fluctuations in the volume of bills purchased are more pronounced than for those they sold as can be seen from table 16.

Nonbank Institutions

The second major group from which buying and selling of outstanding Treasury Bills originate, is the "nonbank institutions". Included in this group are the various financial institutions, statutory bodies and the state governments.

Nonbank institutions traded in outstanding Treasury Bills mainly to invest temporary or excess funds for short periods and even on an overnight basis. This is necessary because, in the course of business, they usually have excess funds which if not utilised, would be left idle and unprofitable. On the other hand, there may be times when they incur shortage of cash and thus need immediate funds. "The flow of receipts" for nonbank institutions "is usually not geared to day-to-day expenditures, resulting in temporary excesses of receipts and vice versa."[2] Treasury Bills appear as a solution by providing a channel where not only profits are offered but also the important characteristic of liquidity so required by these institutions in order to get back funds quickly when the needs arise. Hence they tend to invest excess funds in outstanding bills even for an overnight basis, and when unexpectedly hard-pressed, sell the bills to get back the funds which they have invested earlier.

Transactions in Treasury Bills by nonbank institutions have increased considerably especially from 1965. This can be seen from Table 17. The increase in the amount of bills sold and in the amount purchased by nonbank institutions, like those for the commercial banks, reflect the increasing use made by them of Bank Negara rediscounting facilities. It also means that the market for outstanding bills among nonbank institutions has expanded if compared to the situation in say, 1963. Whereas in 1963 the amount sold and purchased were only \$2 million and \$9 million respectively, the corresponding volumes at the end of 1968 stood at \$330.4 million and \$151.6 million, while in 1967 they were higher at \$345.2 and \$262.7 million.

In both the case of commercial banks and that of nonbank institutions, the extent of their tradings in outstanding issues was shown basing on the volume of transactions they did with Bank Negara Malaysia. Lack of rediscounting facilities and availability of short-period Treasury Bills of assorted maturities other than at Bank Negara confined the bulk of tradings in outstanding bills to Bank Negara and to some extent, the Short Deposit (M) Limited which shall be dealt with later. Nevertheless to say that all transactions

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[2] Ibid, page 112

must go through Bank Negara is uncorrect since direct tradings are also done between buyers and sellers other than Bank Negara. Direct transaction can be done between an intending buyer and seller by endorsing at the back or reverse of the bill, the change in title-ownership of the bill. A commercial bank may trade directly in outstanding bills with another bank or with a nonbank institution. In any case, the seller must endorse or sign the change in ownership or the sale of the bill to the buyer. In Malaysia however, direct trading is not frequently practised because it may be difficult for buyers and sellers to strike an agreement as to the volume or face value of bills and as to the number of days for bills to be held prior to maturity. Rather tradings in outstanding issues are mainly done with Bank Negara and to some extent with the discount house. There is a ready market for outstanding issues at Bank Negara and this brings the reader to the third source of buying and selling in outstanding issues. It should be distinguished first that Bank Negara own transactions in Treasury Bills are different and seperate from the issue of new Malaysian Government Treasury Bills which it helps to manage on behalf of the Government.

TABLE 17

NONBANK INSTITUTIONS TRANSACTIONS IN TREASURY BILLS AT BANK NEGARA MALAYSIA, 1959-1968

($ Million)

Year	Amount Rediscounted	Amount Purchased
1959	-	-
1960	0.5	0.6
1961	3.8	3.0
1962	-	-
1963	2.0	9.0
1964	35.0	63.5
1965	114.6	112.2
1966	169.7	256.8
1967	345.2	262.7
1968	330.4	151.6

Source: Bank Negara

Bank Negara Malaysia

There are two facets to the nature of Bank Negara own transactions in outstanding issues - the rediscounting of outstanding Treasury Bills and the sales of outstanding issues from its own portfolio of Treasury Bills. This subchapter will study the operation of Bank Negara transactions in Treasury Bills.

Transactions in outstanding issues by Bank Negara are not so much for the purpose of striking a proportion between profitability and liquidity, as it was for implementing one of its policies - to create a short term money market with Treasury Bills as the basis. As a step in the implementation of this policy, Bank Negara started by providing rediscounting facilities, within its limited resources, to any holders of Treasury Bills. This is a major step in promoting the growth of the Treasury Bills market and for this to materialise, Bank Negara had to invest some of its funds in Treasury Bills operation for the purpose of buying new issues as well as rediscounting outstanding issues. Diverting these funds into Treasury Bills from more productive investment elsewhere involves a sacrifice of profits by Bank Negara; however, this is an important step relevant to the economic progress of this country, the outcome of which, in the form of a growing bills market more than justifies the sacrifice, yet adds to another success of Bank Negara over the long-run period.

The provision of ready rediscounting facilities also increased the marketability and liquidity of bills. This contributed to the attractiveness of bills as a form of short-term investment and laid off the fear by banks and other holders of bills of incurring great losses in marketing the bills later on. The availability of short-period bills of assorted maturities at Bank Negara provided an attractive avenue for short-period investments which could be used as second-line reserve by banks and financial institutions thereby contributing to a lower cash reserve which they had to maintain.

The Mechanics of Bank Negara Rediscount Facilities

Rediscounting a bill means turning the bill into money prior to maturity date. Rediscounting facilities are available at both Bank Negara in Kuala Lumpur and at its various branches in other parts of Malaysia. A holder of a Treasury Bill who wishes to rediscount it can do so in a similar manner as he originally purchases the bill. He can do this by telephoning the Treasury Bill section at Bank Negara stating the amount of Treasury Bill he wishes to rediscount, together with the date of maturity of the bill. For rediscounting the bill in advance of maturity, Bank Negara charges a rate of rediscount for the period it has to hold the bill before maturity i.e. for the unexpired term of the bill. The discount charged, is the amount deducted from the face value of the bill for cashing it earlier than maturity date. Hence, the bill-holder who has to pay a small discount for rediscounting the bill will receive slightly less money than the face value. The proceeds to be received by him will be: Face value less the discount charged.

The rates of rediscount charged by Bank Negara are known as Bank Negara Rediscount or Buying rates and are different from the Malaysian Government Treasury Bills issue rates. These rates vary from time to time, depending on the rates on new Malaysian Government Treasury Bills issue.

The current rates of rediscount for the various types of bills are shown in Table 18. From the table, it can be seen that for 91-day bills, the rates vary directly with the number of days to maturity, that is, the longer the unexpired period during which Bank Negara has to hold the bill, the higher the rate of rediscount that is charged. Conversely, the rate falls as maturity approaches. For instance, when the unexpired term is 70 to 90 days, the rate charged is 4.25 per cent. On the other hand, when the unexpired period is 1-6 days, the rate charged is lower at 4.06 per cent. However, for 182, 273 and 364-day bills, the rates of rediscount charged vary inversely with the unexpired terms of the bills. These are necessary in order to follow the same yield-pattern obtained by customers under the 91-day type of rediscounting. If the rates on the other three types of bills were to vary directly with the number of days to maturity, then for the same unexpired period as under the 91-day type, the yields accruing to the rediscounters of the three other types of bills will tend to be more instead of less than that for 91-day bill. Thus in order to discourage rediscounting of bills of long-term maturity, higher rediscount rates are charged.

It is important to note that the rediscount rates charged by Bank Negara are PENALTY rates. This can be seen from Table 18. They are penalty rates in the sense that they are higher than the original rates of discount on newly issued bills. For example, the rate of rediscount for a 91-day bill with an unexpired term of 70 to 90 days is 4.25 per cent, while the original rate of discount on a new 91-day bill is 4 per cent. Thus there is a penalty of 0.25 per cent for rediscounting the bill in advance of maturity. The penalty rates on long-term bills are made higher than those on 91-day bill to discourage their rediscounting and also in order to have the same patternyield as the latter. Nevertheless, the rates of rediscount are not as heavy a penalty as those found in U.K. and U.S.A. Rather, the Bank Negara penalty rates are only in the nominal sense. The light penalty rates set by Bank Negara are in keeping with its policy to develop the Treasury Bills market by offering ready, though with little penalty, rediscounting facilities to billholders.

Once a bill is offered for rediscounting, the number of days to maturity or the unexpired term of the bill during which Bank Negara has to hold, is calculated. In calculating this, the day of rediscount is included but the day of maturity is excluded. For

TABLE 18

MALAYSIAN GOVERNMENT TREASURY BILLS

BANK NEGARA MALAYSIA'S REDISCOUNT RATES, 1968

No of Weeks	No of Days Held	4% 91-Day Bills: No. of Days to Maturity	4% 91-Day Bills: Rate of Rediscount	4½% 182-Day Bills: No. of Days to Maturity	4½% 182-Day Bills: Rate of Rediscount	5% 273-Day Bills: No. of Days to Maturity	5% 273-Day Bills: Rate of Rediscount	5½% 364-Day Bills: No. of Days to Maturity	5½% 364-Day Bills: Rate of Rediscount
1	1 - 7	90 - 84		181 - 175		272 - 266		363 - 357	
2	8 - 14	83 - 77	4.25	174 - 168	4.83	265 - 159	5.38	356 - 350	5.97
3	15 - 21	76 - 70		167 - 161		258 - 252		349 - 343	
4	22 - 28	69 - 63	4.22	160 - 154		251 - 245		342 - 336	
6	29 - 42	62 - 49	4.19	153 - 140	4.94	244 - 231	5.48	335 - 322	
8	43 - 56	48 - 35	4.16	139 - 126	5.05	230 - 217	5.59	321 - 308	6.05
10	57 - 70	34 - 21	4.13	125 - 112	5.16	216 - 203	5.70	307 - 294	6.15
12	71 - 84	20 - 7	4.09	111 - 98	5.27	202 - 189	5.80	293 - 280	6.24
13	85 - 90	6 - 1	4.06	97 - 91	5.38	188 - 183	5.87	279 - 274	6.31
14	92 - 98			90 - 84		182 - 175		273 - 266	
16	99 - 112			83 - 70	5.48	174 - 161	5.95	265 - 252	6.41
18	113 - 126			69 - 56	5.59	160 - 147	6.04	251 - 238	6.50
20	127 - 140			55 - 42	5.70	146 - 133	6.13	237 - 224	6.59
22	141 - 154			41 - 28	5.81	132 - 119	6.21	223 - 210	6.69
24	155 - 168			27 - 14	5.92	118 - 105	6.32	209 - 196	6.78
26	169 - 181			13 - 1	6.03	104 - 91	6.41	195 - 182	6.88
28	183 - 196					90 - 77	6.50	181 - 168	6.97
30	197 - 210					76 - 63	6.60	167 - 154	7.06
32	211 - 224					62 - 49	6.70	153 - 140	7.16
34	225 - 238					48 - 35	6.84	139 - 126	7.25
36	230 - 252					34 - 21	6.98	125 - 112	7.34
38	253 - 266					20 - 7	7.12	111 - 98	7.44
39	267 - 272					6 - 1	7.25	97 - 91	7.55
40	274 - 280							90 - 84	
42	281 - 294							83 - 70	7.64
44	295 - 308							69 - 56	7.73
46	309 - 322							55 - 42	7.84
48	323 - 336							41 - 28	7.94
50	337 - 350							27 - 14	8.03
52	351 - 363							13 - 1	8.13

Source: Bank Negara

example, a bill to mature on 8.2.1969 is discounted on 2.2.1969. The unexpired term therefore is 6 days running from 2.2.1969 to 7.2. 1969 and not to 8.2.1969. Once the number of days to maturity is calculated, the appropriate rediscount rate is applied to determine the amount of discount to be charged.

The net proceeds to be received by the rediscounter is computed as follows. Let it be that a 91-day bill, No: 12345 for $10,000 to mature on 2.2.1969 is rediscounted on 29.1.1969. The unexpired term therefore is 4 days from 29.1.1969 to 1.2.1969, while the applicable rate of rediscount is 4.06 per cent (with a penalty of 0.6 per cent). The discount therefore is:

$$\text{Face value} \times \text{Rate of Rediscount} \times \frac{\text{Number of days to maturity}}{365}$$

$$\$10{,}000 \times \frac{4.66}{100} \times \frac{4}{365} = \$4.45.$$

The net proceed to be obtained by the bill-holder is:
Face value, less discount i.e. $10,000 - $4.45 = $9,995.55.

Once the officer-in-charge has determined the net proceed to the holder, he will inform him about this by telephone. The client will then have to submit his Treasury Bill, duly endorsed at the reverse side, to Bank Negara. If the client is a commercial bank, the net proceed will be credited to its clearing account at Bank Negara. Otherwise, a cheque in favour of the client is prepared.

Rediscounting a Treasury Bill can also be done at any of the branches of Bank Negara. For instance, if a bill-holder in Sarawak decides to discount his Treasury Bill, he can do so at the Kuching Branch of Bank Negara initially by telephone. The Kuching Branch will compute the net proceed and then inform the Treasury Bill section at the Head Office by telephone, who will then send a cheque in favour of the Interbranch account. The Kuching Branch will subsequently forward the bill, duly endorsed by the client, to the Head Office for safe custody.

The Mechanics of Issuance of Short-period Treasury Bills

A second facet of Bank Negara transactions in outstanding bills is its sales of short-period Treasury Bills of less than 91 days from its portfolio or holdings to anyone wishing to purchase them. There is no limitation as to who could purchase them or in what amount, subject firstly, to the minimum denomination of $10,000 with subsequent amount available in multiples of $10,000 and secondly, to the total amount of portfolio made available for sales by Bank Negara.

Sales of Treasury Bills from Bank Negara own portfolio offer a very attractive avenue for short-period investment of temporarily surplus funds, even for a one-day period. They should be profitable to banks and financial institutions having excess funds over the short period. Rather than letting these funds remain idle in the tills, it would be better to utilise them by purchasing short-period Treasury Bills to get profit while at the same time maintaining the desired characteristic of liquidity. For example, a bank may have funds in excess of the cash reserves to the amount of $100,000 which is not going to be used for any other purpose in the next day. Rather than letting it remain idle and unproductive, the $100,000 can be used to purchase Treasury Bill with one day to run before maturity in order to get profit. At the current rate of selling, the bank will get a discount of $9.58. Thus by utilising the excess fund for just one day, the bank is able to make a gain of $9.58 cents.

Purchases of short-term Treasury Bills from Bank Negara own portfolio can be made at Bank Negara in Kuala Lumpur or at any one of its branches. A potential purchaser should first of all telephone the officer-in-charge to inquire on the availability of the Treasury Bill maturing on a required date of maturity, and if available, whether it is adequate in amount to suit his need. Or, he may inquire about bills maturing within a specified number of days as required. Once this inquiry is satisfied and that the required bill is available, a confirmed purchase can then be made. Otherwise if it remains just an inquiry, no further action is taken. The bill may be reserved by the potential client, pending payment. However if there is another client making a confirmed purchase of the same bill, then the latter will be accorded first preference against that of reservation only.

For confirmed sales, net costs are computed using predetermined discount rates known as Bank Negara Malaysia Selling Rates for bills of 90 days and less. These rates are fixed at the discretion of Bank Negara normally varying with the Malaysian Government Treasury Bill rate. Table 19 shows the selling rates of Bank Negara portfolio of Treasury Bills. The selling rates vary directly with the number of days to maturity. The longer the unexpired term of the bill, the higher the rate. For 1-21 days to maturity, the current selling rate is 3.5 per cent, while for 85-90 days the rate is higher at 3.94 per cent per annum.

In calculating the number of days to maturity of the bill, the day of sale is included while the day of maturity is excluded. For example, take the sale of a Treasury bill for $100,000 from Bank Negara's portfolio on 2.2.69 and to mature on 3.2.69. The number of days to run before maturity is only one day. The selling rate for one day is $3\frac{1}{2}$ per cent. The discount to be given is:-

$$\text{Face value} \times \frac{\text{Number of days}}{365} \times \text{Selling rate.}$$

$$\$100{,}000 \times \frac{1}{365} \times \frac{3.5}{100} = \$9.58 \text{ cents.}$$

The cost to the purchaser is: Face value less discount, that is $99,990.42. The client therefore is able to earn $9.58 for one day by investing in Treasury Bill rather than keeping his excess funds idle.

TABLE 19

BANK NEGARA MALAYSIA'S SELLING RATES FOR TREASURY BILLS OF 90 DAYS OR LESS

Days to Maturity	BNM's Selling Rate
1 - 7	
8 - 14	3.50
15 - 21	
22 - 28	3.63
29 - 42	
43 - 56	3.75
57 - 70	
71 - 84	3.88
85 - 90	3.94

Source: Bank Negara

Once the cost of sale to the client is known, the discount or yield earned by Bank Negara for keeping the bill earlier, during the period prior to the sale can subsequently be computed. The yield earned by Bank Negara is: Net proceed of sale to customer, less the net cost of purchase. Thus if earlier, the net cost of purchasing the bill by Bank Negara was $99,950, then the discount it obtains before selling the bill later, is $99,990.42 - 99,950 = $40.42 cents.

Sale of short-term Treasury Bills is also done at the branches of Bank Negara. A client who wishes to buy a bill at branch level should first inquire by telephoning the nearest branch on the availability of the bill giving the date of maturity or the unexpired period required of the bill. The branch will then telephone the Head Office inquiring about this. If available, a confirmed purchase can be made after the inquiry and the branch will again telephone the Head Office confirming the purchase. After payment, the bill will be sent to the client.

A Treasury Bill that is sold by Bank Negara must be endorsed by the authorised officer in favour of the customer. The bill should be accompanied by a covering memo.

Maintenance of a Well-spread Portfolio of Treasury Bills

For the purpose of carrying out transactions in outstanding bills, Bank Negara has to maintain a portfolio of Treasury Bills of 90 days or less to maturity. Both rediscounting and sale of bills are hinged to this portfolio. Rediscounting means addition to the existing holdings of bills held by Bank Negara while sales mean subtraction or depletion from this portfolio.

Maintenance of a well-spread portfolio of Treasury Bills means maintaining a Treasury Bill holding of assorted maturities and this is very essential in carrying out the sale of short-period bills, with a view to encourage a market in them. The portfolio is spread over a period of three months on a "running" or "rolling" basis. This means that after a portion of Treasury Bills matures each week, it is replenished by a new portion of Treasury Bills with newer life of maturities. In this way the old portfolio will "roll-over" to a new portfolio of bills after the first period of three months is over.

To maintain a well-spread portfolio of Treasury Bills, Bank Negara besides offering rediscounting facilities, also purchases 91-day Treasury Bills direct from the Account-General Treasury Bill issue. In this way, Bank Negara becomes a source of demand for the new issues of Treasury Bills. Bank Negara can hold the bills it purchases as a form of its investments till maturity in order to earn the discount on the bill. However, more important is that the purchase of new issues by Bank Negara is to maintain the well-spread portfolio which, with its assorted maturities, can be made available to buyers to encourage the growth in the Treasury Bills market.

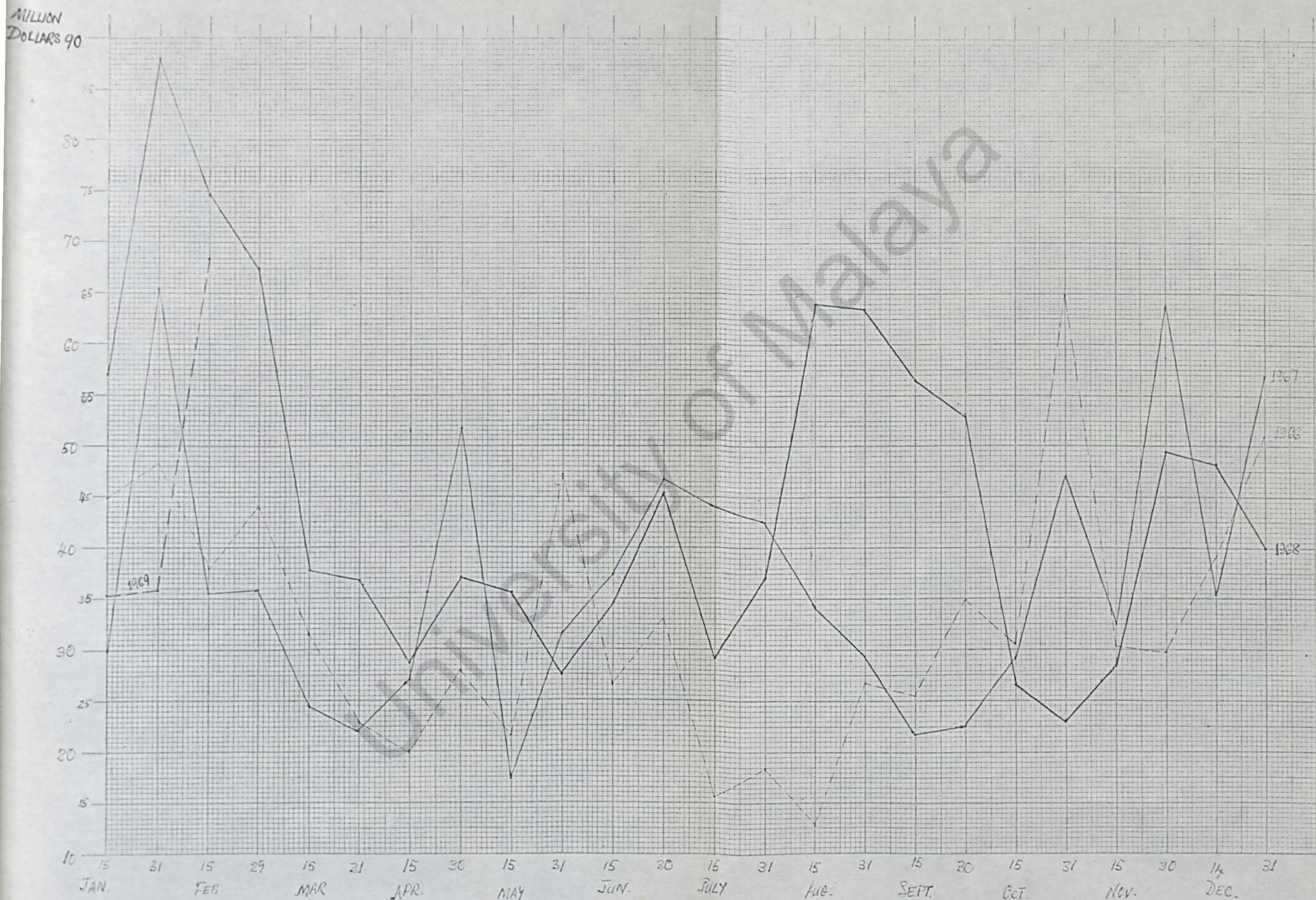
Development in Bank Negara Holdings of Treasury Bills

Holdings of Malaysian Government Treasury Bills by Bank Negara have been fluctuating for the past three years. In 1966, the portfolio was $51 million; it was higher in 1967 at $57 million. In 1968, the portfolio fell to $40 million. The month-to-month portfolio of Treasury Bills at Bank Negara has also been fluctuating due to various factors. This is clearly shown in Figure 10 which shows Bank Negara holdings of Malaysian Treasury Bills for the years 1966 to 1968 and early 1969.

As an illustration of the month-to-month fluctuations in Bank Negara holdings of Treasury Bills, the 1968 portfolio shall be studied. There was a rise in the Treasury Bills holding by Bank Negara to over $85 million in early 1968. This could be attributed to considerable rediscounting of outstanding bills by commercial

FIGURE 10

BANK NEGARA MALAYSIA — HOLDING OF MALAYSIAN GOVERNMENT TREASURY BILLS.



Source: Bank Negara

banks in order to meet their cash requirements for the Chinese New Year and other festive seasons early in the year.

Once the festive season was over, cash and funds began to return to the banks so that the amount of deposits held by banks started to increase. Banks found it unnecessary to continue and instead reduced their rediscounting of bills from the amount done in January. The increased deposits were utilised to purchase short-dated Treasury Bills from Bank Negara. With reduced rediscounting and increasing sales of short-dated bills, the holdings of bills by Bank Negara began to fall in February, March and early April so that by April 15th., the portfolio stood at about $28 million only. In the later-half of April, however, increased rediscounting by commercial banks to meet their cash needs accounted for the rise in Bank Negara portfolio of bills. In May, however, the portfolio fell to about $27 million mainly due to the sharp fall in the volume of rediscounting done by commercial banks who obtained their cash requirements by selling their foreign exchange holding to Bank Negara.

The fluctuating nature of the month-to-month holding of bills by Bank Negara continued in June when increased rediscounting caused a rise in the portfolio. In the first-half of July however, the portfolio decreased mainly due to the increase in the volume of Treasury Bills redeemed by Bank Negara.

Between July 15 to August 15, the portfolio rose sharply to $64 million due to increased rediscounting by commercial banks. The proceeds were needed by commercial banks largely to subscribe to the Second Malaysian Government loan, to finance their purchases of Singapore dollars, the withdrawal of deposits and the increase in loans and advances.

The portfolio in the later-half of August, September and October fell steeply to $23 million. This can be attributed to increased redemption of matured bills by Bank Negara as well as by the purchase of some short-dated bills by banks utilising the proceeds from the sale of foreign exchange to Bank Negara.

Towards the end of the year as the festive season approaches, commercial banks increased their volume of rediscounting with Bank Negara for the purpose of meeting their cash requirements. This resulted in the increase in Bank Negara portfolio of bills in the period November 15 to December 15. In the later-half of December, purchases by buyers for the purpose of "window-dressing" accounted for the fall in the portfolio of bills at Bank Negara.

Splitting of Treasury Bills

In carrying out transactions in outstanding issues - rediscounting and sale - there may arise times when the client may wish to rediscount only a portion of his Treasury Bill or, purchase from Bank Negara just a portion of the main bill. Where such circumstances arise then splitting of the Treasury Bill is necessary.

'Splitting' is the process of cancelling one bill i.e. the main bill, and then to make two or more bills whose amounts total up to the same face value of the main bill. In other words, the main bill is "broken-up" into a number of bills of smaller denominations. Splitting is done at the discretion of the officer-in-charge. For example, a bill-holder possessing a bill to the value of $100,000 wishes to rediscount only $60,000. The officer can break the $100,000 bill into one of $60,000 and another for $40,000. The bill-holder may then keep the $40,000 bill and have the $60,000 bill rediscounted. Similarly, the process is applied in the case of purchasing a portion of an outstanding bill from Bank Negara portfolio. The process of splitting is necessary to facilitate the transactions in bills done by Bank Negara Malaysia.

Volume of Transactions in outstanding Treasury Bills by Bank Negara

On the whole, transactions in outstanding issues by Bank Negara have increased significantly eversince its formulation in 1959. This can be seen from Table 20. The rapid development in rediscounting done is shown by the increasing volume of Treasury Bills rediscounted. In 1959, only a nominal sum of $2.2 million was rediscounted. This figure increased irregularly to $45.8 million in 1963. Eversince 1964, the volume rediscounted increased rapidly from $132.2 million in that year to $830.2 million in 1968, an increase by almost seven times the former. The rapid increase in the volume rediscounted clearly reflects the increasing use made by clients especially the commercial banks of the rediscounting facilities offered by Bank Negara.

The popularity of investing in short-dated Treasury bills offered by Bank Negara is shown by the increasing amount of "short" bills sold over the period 1960 to 1968. While in 1960 the amount sold was only $4 million, the volume increased greatly to $80.8 million in 1963 and since then had gradually rose to $380.8 million by 1968.

Thus-far the buying and selling operations performed by Bank Negara constitute the largest transactions in outstanding issues in Malaysia and this may remain so until the money market has developed in the economy.

TABLE 20

BANK NEGARA MALAYSIA TRANSACTIONS
IN TREASURY BILLS, 1959-1968

($ Million)

Year	Amount rediscounted or purchased	Amount sold
1959	2.2	-
1960	6.1	4.0
1961	20.9	53.3
1962	7.2	29.0
1963	45.8	80.8
1964	132.2	154.4
1965	285.9	233.6
1966	572.4	318.3
1967	814.8	343.5
1968	830.2	380.8

Source: Bank Negara.

CHAPTER V

DEVELOPING THE TREASURY BILLS MARKET IN MALAYSIA

The need for a money market

The importance of Treasury Bills finance concerned partly the Government and partly the role of central banking. It concerned the government mainly in relation to the overall budgetary deficits while it concerned central banking mainly with the aim of creating a money market within which effective monetary policy can be undertaken.

As was noted in Chapter I, the growth of budgetary deficits especially with respect to the high amount of recurrent expenditure, had made the financing an important task to be met by the Government, in one way by the issue of Treasury Bills. Due to the short term nature of the Treasury Bills, their proceeds were largely meant for meeting any uncovered day-to-day or administrative requirement of the Government and to finance temporary shortfall in Government revenue as well as for the purpose of redemption of maturing Treasury Bills. However, funds needed for such purposes were normally smaller in amount when compared to the amount of bills issued from year to year, thus resulting in high Accountant-General balances at Bank Negara Malaysia. These excess balances had not been fully utilised in the past years. Transfer of these funds for long-term development purposes through the Consolidated Revenue account, besides being undesirable due to their short-term nature, was not possible except with the approval of the Dewan Rakyat. The question therefore is: If there existed high unutilised Accountant-General balances at Bank Negara Malaysia, why had the issue of Treasury Bills been continued unrestrictively? There is no enigma here. While prior to 1959, the sole purpose of issuing Treasury Bills was for Government finance, after 1959 the issue of bills was a step taken toward effecting the role of central banking in this country "to promote monetary stability and a sound financial structure in the Federation and to influence the credit situation to the advantage of the Federation".[1] The reliance on central banking to undertake monetary policy to influence the credit situation of the country has made it emphatically important the need to foster a short-term money market in Malaysia, within which monetary policy can be effected.

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[1]Bank Negara, Annual Report, 1959, page 4.

Peter G. Fousek defines a money market as "a centre for organised dealings in monetary assets which provides the liquidity needed by lenders and at the same time satisfies the short-term requirements of borrowing."[2] Essentially, a money market is a market for short-term funds facilitating both borrowing and lending. The importance of a money market centres around the advantages to be derived from it which can be beneficial not only to commercial banks, nonbank institutions, investors, the government and the economy, but also crucial for the effectiveness of central banking's monetary policy.

For the commercial banks, the presence of a money market contributes to the utilisation, as well as facilitating the adjustment of reserves among commercial banks with excesses and deficiencies in their reserves position, arising from interbank shifts in deposits. By providing a short_term investment avenue to commercial banks with excess funds, it can contribute to a narrower margin of non-earning assets held by the banks. It may also provide a convenient investment outlet to nonbank institutions and businesses as well as facilitating short-term borrowing by business firms and borrowers in needs of immediate funds by issuing commercial papers.

For the economy as a whole, the establishment of a developed money market can lead to a more economical allocation and intensive use of short-term capital available in the economy. The presence of "a developed money market helps to assure the channelling of funds into the uses most needed for the expansion of the economy and facilitate the most efficient utilisation of domestic savings."[3]

Perhaps, more important in present days, the need for a money market lies in its role in making effective the monetary policy of a central bank. It is for this reason that Wilson recommends the establishment of a money market in areas that still lack one: "The development of a more active short-term money market would enable the authorities to supplement the methods of direct action by operating in the open market and allowing market forces to spread their effects far and wide ..... to permit smoother adjustments .... It is on these grounds that the present writer (Wilson) would encourage the growth of new money markets and indeed, where the emergence of appropriate institutions has proceeded too slowly, even their artificial creation."[4]

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[2] P.G. Fousek, Foreign Central Banking, Federal Reserve Bank of N.Y., 1957, page 82.

[3] Ibid, page 83.

[4] J.S.G. Wilson, The New Money Markets, in Lloyds Bank Review, April 1962, No. 64, page 45.

The presence of a money market in a country, thus, will prepare the ground for open market operations by the Central bank. The widening of the market will make it possible for commercial banks to operate on smaller margin of excess reserves and relatively stable cash ratios and this will increase the effectiveness of open market operations in influencing the credit policy of commercial banks by effecting changes in bank reserves. Further, with narrower margins of excess reserves, commercial banks would be forced to resort to the Central Bank for funds in periods of pressure and this would lead to the effectiveness of the rediscount or Bank rate on commercial banks' lending policy. It is also hoped that with the presence of a money market, the commercial banks in this country, which formerly have been trade and oversea-oriented, may gradually come to hold local liquid assets, most probably Treasury Bills, instead of liquid assets in capital markets abroad. Greater dependence on the local market will increase the influence of the central bank. According to Plumptre, "any change which diminishes the banks' dependence on foreign liquidity and increases their dependence on the local market should contribute to the influence of the local central bank."[5]

Problems to the establishment of a money market

The basis for a money market must be a regular supply of temporary idle funds seeking short-term investments, and the presence of a demand for such funds. Whether these bases are available would depend on the nature of the economy and the prevailing institutional arrangements in the country. J.S.G. Wilson is of the view that a highly export-oriented economy, dependent on export-incomes, may fluctuate with the terms-of-trade and as such there may be no regular supply of external earnings or regularly revolving fund of cash available to the economy upon which a money market is to be organised.[6] As such, a diversification in its exports and the control and regulation of foreign exchange would provide a cushion against violent fluctuations in its export incomes. Malaysia has already embarked on these policies in an attempt to avoid "catching the cold when her Western importers sneeze." Within the Malaysian economy itself, there is no lack of funds that could provide a regular supply to the money market. Such funds are only awaiting to be tapped by borrowers.

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[5]A.F.W. Plumptre, Central Banking in the British Dominions Toronto University Press, 1947, page 314.

[6]J.S.G. Wilson, op. cit., page 34.

For a money market to be established, the prevailing institutional arrangements in the country must be relatively well-developed, especially the banking system. "An organised banking system and the Central bank provide the main foundation for a developed money market ....,"[7] but may not always lead to the growth of a developed money market. In this respect too Malaysia is not inadequate in such facilities. The banking system in Malaysia has always been fairly well-developed. What had partly prevented the development of a local money market earlier was not the inadequacy of a developed financial banking system but the nature of orientation of these banks. As has been noted earlier, prior to the establishment of Bank Negara, the commercial banks in Malaysia have been very largely trade-oriented. Almost all their funds were invested in foreign capital markets and their holdings of assets were very largely composed of foreign securities. It is important therefore that in trying to establish a money market in Malaysia, the trade-orientation of the commercial banks must be reduced. Rather the banks must be induced to turn their attention more to the domestic economy where funds that are earned and those that are idle can be harnessed and channelled for effective utilisation locally for the betterment of the economy.

Reciprocally, "the establishment of a money market with adequate opportunities for the investment of short-term funds may result in the repatriation of these funds from foreign centres. In so far as these funds are invested at home, the effectiveness of Central bank's control mechanism would tend to increase."[8] Therefore, commercial banks, both foreign-based or local, should be encouraged to hold more local assets in place of foreign securities and the development of Asian and local banks should also be given encouragement. Eversince independence and the formation of Bank Negara in 1959, it is encouraging to note that banks in Malaysia have gradually replaced their holdings of foreign assets with local securities.

There is no doubt that a money market could perform various functions and offer many advantages if established in Malaysia. The problem of establishing a money market in Malaysia is not so much technical as it is of fulfilment and determination. The establishment of a money market in Malaysia has been the expressed hope of Bank Negara eversince its formation in 1959 and the instrument that was adopted as the basis of a money market in the country was the Treasury Bills.[9] Treasury Bills would provide the type of liquid

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[7] S.N. Sen, Central Banking in Undeveloped Money Markets, Bookland Private Limited, Calcutta, 1961, page 16.

[8] Ibid, page 26.

[9] Refer: Bank Negara Annual Report, 1959, page 10.

security most suitable for a central bank to deal in and to hold, and would certainly facilitate central bank control of monetary affairs.

Thus with the ultimate objective of developing a money market in Malaysia, the growth of the Treasury Bills market has been fostered and encouraged for the last ten years. Various steps have been taken as shall be examined now. Many of the steps taken have already been mentioned in passing in earlier chapters. Nevertheless it would be better to group them all under a single chapter now.

Steps taken to develop the Treasury Bills market

Development of the Treasury Bills market progressed along two lines - the supply side and the demand side. Supply and demand form the two forces controlling the expansion of the market. The progress of the market would therefore depend on the progress made on both the supply as well as the demand sides of Treasury Bills in the country. As such steps taken to foster and promote the supply as well as the demand for Treasury Bills are steps that inevitably influence the progress of the Treasury Bill market.

The provision of an adequate supply of Treasury Bills is one of the first steps taken by the Government and Bank Negara in fostering the development of the Treasury Bill market. Availability of an adequate volume of Treasury Bills as a short-term investment paper is a prerequisite for a short-term money market, without which funds that are available for short-term utilisation could not find employment in profitable places or avenues. Eversince 1960, the stoppage and rundown of the Treasury Deposit Receipts which hitherto had been an important avenue for short-term investment of funds, deprived investors of a supply of short-period investment paper; this led to an increase in the role of Treasury Bills as the main source of short-term papers. The rundown of Treasury Deposit Receipts has so far been largely compensated by the increase in Treasury Bills issue which provides adequate investment paper to satisfy the prerequisite of the Treasury Bill market. This trend can be seen by reference to Table 4 in Chapter II.

Over the postwar years and especially eversince the formation of Bank Negara Malaysia, the statutory ceiling which limited the volume of bills outstanding, had been raised rapidly to meet the rising demand for short-term papers by banks and various investment institutions. The statutory ceiling prior to the formation of Bank Negara, was raised only twice, in 1952 and 1955. During this period, the development of the bill market was not the concern for effecting central banking's monetary policy because Bank Negara only came into existence in 1959. Rather, the changes in the statutory ceiling were necessary to satisfy the need for government finance. In 1952, the ceiling was extended to \$80 million from the original limit of

$20 million. In 1955, the $80 million limit was further raised to $150 million.

Eversince the establishment of Bank Negara in 1959 and the formation of Malaysia in 1963, the need to develop the bills market, as basis for the money market, became the concern not only for Government finance but more so the need to gradually make effective the role of central banking in influencing the monetary condition in the country. These made it necessary to raise the statutory limit still further on three more occassions until this day. In 1963, the statutory ceiling was raised to $300 million; in 1965, to $600 million and in 1966 to $1,000 million. The rapid rise in the statutory ceiling in the recent years is a reflection of the rapid expansion in the demand for Treasury Bills which needs to be met with. The raising of the statutory ceiling is therefore a step taken to ensure a smooth development in the market for Treasury Bills.

With the increase in the issues of Treasury Bills, the work of management increasingly became a burden to the Accountant-General of the Treasury to be able to operate it efficiently. In January 1964, a step was taken to correct this difficulty by the takeover of management of Treasury Bills issue by Bank Negara. This relieved the Treasury of an awesome task which, due to the lack of time and staff to efficiently manage the issues, had retarded a rapid development in the market for Treasury Bills. With Bank Negara assuming the responsibility for new Treasury Bills issue, and being in line with its policy to develop a Treasury Bill market to effect its monetary policies, the demand for new issues could thus be catered more efficiently and promptly than before. Not only that, but Bank Negara went on to encourage the development of the Treasury Bills market by undertaking the sale of Treasury Bills from its own portfolio in periods when the sale of new issues alone could not cope with the demand for Treasury Bills, such as when the statutory ceiling was almost reached. The efficiency of Bank Negara in handling the issues of Treasury Bills was greatly supplemented by the close understanding which had been existing from its direct relationship with commercial banks, the main source of demand for bills, as well as nonbank financial institutions.

With Bank Negara offering an efficient issuing service, the ready availability of Treasury Bills issue would complete the hand-and-glove combination toward fostering the market for the bills. As such the Government, with the advice of Bank Negara, had continued to maintain the issue of Treasury Bills on tap basis. This meant the supply of bills was not delayed or limited at any one time so long it remained within the stipulated statutory ceiling. Consequently, the development in the market for Treasury Bills was expedited by this step.

However, the continuance of the tap system involved a sacrifice on the part of the Government in view of the high Accountant-General balance that had accrued but which could not be fully utilised for short-term purposes. Adoption of a tender system of issue could very well limit the amount of Accountant-General balance at Bank Negara to a desired level but this limitation would not be conducive to the policy of developing a Treasury Bills market in Malaysia. A tender system would bring along with it, its own problems since the amount of bills that could be issued in a particular period was predetermined by the authority and the demand therefore would have to be suited to the supply. As such, a tender system might create a situation where demand always exceeded the supply, and this could cause funds, in excess of the limited amount that was allowed to be invested in local Treasury Bills, to flow out of the country in search of an avenue for investment in capital and money markets abroad. Outflow of local funds abroad is not desirable to this country which requires funds for local purposes. Further, the adoption of a tender system of issue would mean that demanders would have to compete with each other bidding higher prices or lower discount rates in order to secure a purchase of the tenderable bills, This would make it difficult for the discount house to operate since it had to compete with other bidders. Thus, since the Government wants to foster the development of the discount house, and to maintain local funds intact of oversea investment opportunities, the tap system of issue continues to be adopted.

In order that the market for Treasury Bills be widened and spread to as many investors as possible, the minimum amount of purchase of Treasury Bills which, under the Accountant-General prior to 1963, had been at $100,000 and later lowered to $50,000, was reduced to $10,000, the lowest possible denomination for a Treasury Bill issue. In this way 'small' investors could have access to the issue of Treasury Bills which, prior to this, had been accessible to 'large' but limited number of investors, thereby widening the market for Treasury Bills.

All the steps so far mentioned had been facilitated largely because of the understanding and cooperation that existed between the Treasury and Bank Negara with regards to the development of the Treasury Bills market.

Perhaps the most important step taken so far to develop the Treasury Bills market was the provision of rediscounting facilities to holders of Treasury Bills by Bank Negara eversince its formation in 1959. By providing rediscounting facilities, Bank Negara contributed much to increase the liquidity of the bills, in this way increasing the confidence of investors in the marketability of Treasury Bills. Once this confidence is ensured, there should be no fear of illiquidity on the part of owners of short-term funds with respect to investment in Treasury Bills, thus leading to an increase in their demand for Treasury Bills.

Although the rediscount rates at Bank Negara were penalty rates, in view of its policy to develop the bill market, Bank Negara imposed as low a penalty as possible in its rediscount rates. In this way, holders of Treasury Bills need not fear of great losses in marketing the Treasury Bill when they need funds thus encouraging more people to invest in Treasury Bills. The penalty rates set by Bank Negara were only 1/8 to 1/4 per cent above the current rates of discount on new Treasury Bills issue. Thus these penalties were mild and had not adversely affected the Treasury Bills market.

Another step taken to foster the growth of the Treasury Bills market was to encourage more investment in Treasury Bills by offering better discount rates to investors which meant better yield on the investment. The discount rates on Treasury Bills were made as attractive as possible relative to corresponding international rates in order to ensure that local funds would not flow out but instead be invested in local securities, especially Treasury Bills. Eversince 1959, the discount rates on Treasury Bills were made as attractive as possible as can be seen from Table 5 in Chapter II. The rate on 91-day Bill which in 1959 stood at 3 per cent was increased to 5 per cent in 1961, taking into account the international trend in interest rates. Between 1960 and 1968, the rate on 91-day Bill never fall below 4 per cent per annum, making it an attractive source of short-term investment paper.

Prior to and alongside with the improvement in the yield or rates on Treasury Bills, Bank Negara had taken a step to check the high deposit rates offered by commercial banks. This step was necessary not just to eliminate the embarrassment inflicted on the Government with respect to its lower rates on Treasury Bills vis-a-vis the deposit rates but more so as a step to encourage the growth of the Treasury Bills market by reducing the competition posed by the high deposit rates of commercial banks. "These high rates were leading to distortions in many ways and were at times embarassing to the Government in relation to their shorter-term securities (Treasury Bills and Treasury Deposit Receipts)."[10] Thus the step taken to correct this situation was the setting up of maximum deposit rates i.e. a rationalisation of deposit interest rates of commercial banks in 1959.

Between the years 1959 and 1968, the development in the market for short-term Treasury Bills was remarkable judging from the rise in the amount issued and outstanding. However, the market for long-term Bills of 273 and 364-day maturities continued to remain narrow prior to 1968 with only the State Governments taking them up. In view of the lack of demand for these long-term Treasury Bills,

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[10]Bank Negara, Annual Report, 1959, page 10.

two alternatives were apparent - either to scrap up the issue of such bills and concentrate on short-term Bills, or to foster the demand for such bills. Scrapping up the issue of long-term Bills obviously would not help to improve the market for Treasury Bills and would therefore be unwise to adopt. Thus, the Government in 1968 decided to undertake a step to foster the growth of the market for long-term Treasury Bills in the form of a differentiation in the rates on the various types of Bills issue. In 1968 the rates on Treasury Bills, which hitherto (since 1960) had remained uniform for all types of bills, were differentiated twice to make long-term Bills more attractive. In June 1968 the rate on 91, 182 and 273-day Bills was set at $4\frac{1}{2}$ per cent. However for the 364-day bill, the rate was made higher at $5\frac{1}{2}$ per cent in order to make it more attractive to investors. In August the same year, the rates on the various types of Treasury Bills were again differentiated, the yield being higher, the longer the maturity of the bills. The rate for 91-day bill was set at 4 per cent and that for 182-day bill remained at $4\frac{1}{2}$ per cent. To foster the demand in long-term Treasury Bills, the rate on 182-day bills was increased to 5 per cent while that for 364-day bills continued to remain at $5\frac{1}{2}$ per cent. (Thus investment in 364-day bills will yield greater income for the investors relative to investment in bonds or other long-term securities of the same value).

Another way by which the Government tried to develop the Treasury Bills market was through the liquidity requirement and the local asset requirement imposed on commercial banks in the country. The liquidity requirement imposed on banks by Bank Negara requires that a proportion of the total bank deposits be held in the form of liquid assets. This requirement has since 1959, varied between 25 to 20 per cent. But what is more important is that, of this proportion about half must be in local securities, especially Treasury Bills. With the rise in total bank deposits over the past years, as can be seen from Table 3 in Chapter I, the demand for Treasury Bills to satisfy the liquidity requirement inevitably increased.

In 1961, the minimum liquidity ratio was raised from 20 per cent to 25 per cent in order to curb speculative and to have more selective lendings by banks. Of this ratio, 5 per cent could be in the form of Government securities of greater than three months to maturity. The observance of this ratio consequently caused an increase in the demand for Treasury Bills by commercial banks. The more significant change in the liquidity requirement occurred in 1965 when, in February, the ratio was reduced to 20 per cent. In this case, it was required that at least 10 per cent should be in local liquid assets and Government securities. The observance of this ratio resulted in a tremendous increase in the demand and holdings of Treasury Bills by commercial banks to the extent that it changed the asset structure of the banking system. By 1965, of the \$449.8 million outstanding Bills, \$302 million or 67.1 per cent was held by commercial banks. The continued observance of this ratio in the following years of 1966 and 1967 increased further the demand for and the holding of Treasury Bills by commercial banks who accounted for $415.9 million and $437.8 million respectively, of the total bills outstanding. Thus by using the liquidity ratio requirement, the Government was able to extend the market for Treasury Bills to all the commercial banks.

Another way of fostering the demand for Treasury Bills by commercial banks was by the imposition of the local assets ratio on commercial banks in Malaysia. Under the local assets ratio requirement, banks may be required to hold a prescribed proportion of their deposit liabilities in approved local assets especially Treasury Bills. Thus-far, although the Central Bank has the power to impose the local assets ratio on commercial banks, it has not done so because most of the commercial banks, on their own accord, have increasingly taken advantage of suitable local investment opportunities, one of which is the Treasury Bill. Thus, on their own accord, the banks have increased their demand for local assets, mainly Treasury Bills, as part of their investment portfolio.

The liquidity ratio requirement and the local ratio requirement were two important instruments with which Bank Negara was able to foster directly the demand for Treasury Bills among commercial banks, and consequently the development of the Treasury Bills market for the ultimate purpose of implementing central bank monetary policies. "The introduction of a ratio of liquid assets consisting of Malaysian liquid assets and Government securities is a desirable change and should increase to some extent, the effectiveness of monetary measures that may be taken by the Central Bank."[11] The development in the Treasury Bills market is therefore correlated with the effectiveness of Central Bank policies.

Other steps that have been taken by the Government to foster the development of the Treasury Bills market took the form of the exemption of stamp duty in Treasury Bills transactions and transfers, and making them tenderable for estate duty. With regards to the geographical widening of the market, it was extended by an ordinance in January 1964, to cover East Malaysia. The prospect of a growing market in this part of Malaysia appears to be bright in view of the large amount of unharnessed funds lying in this part of the country.

Establishment of a discount house

With respect to the structure of the Treasury Bills market, a sifnificant step taken to foster the growth of the Treasury Bills market was the establishment of a discount house in Kuala Lumpur towards the end of 1963. This was the first, and until now, the only

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[11]Bank Negara, Annual Report, 1964, page 4

one of its kind in operation in this country. The company operating as the discount house is the Short Deposit (Malaysia) Limited, a subsidiary of the South East Asia Development Corporation, with a paid up capital of $1 million.

The establishment of the discount house was of significance to the Treasury Bills market because it introduced the system of having an intermediary in the transactions on Treasury Bills, besides the usual groups of buyers and seller. According to Fousek, "the existence of market intermediaries holding money market securities, making markets in them and seeking out idle short-term funds from all parts of the economy has generally proved of great help in the development of money markets, even though it may not have been found essential."[12] This view holds true also of the local discount house and its role in the development of the Malaysian Treasury Bills market.

In its initial stage, the discount houses needed to be guided by Bank Negara with respect to its investment policies, and thus its operation had hitherto been restricted by an agreement with Bank Negara. Under this agreement, the discount house was authorised to invest its funds only in Government securities maturing within three years, or in Treasury Bills. Hence the portfolio of securities held by short Deposit had consisted mainly of Treasury Bills which it kept with Bank Negara for safe custody.

The functions of the Malaysian discount house are two-fold. Firstly, its business is to collect funds and utilise them for trading in Government securities. Secondly, it aims at assisting the economy by being able to harness large volume of idle funds available from various sources in the country for very short period. Short Deposit finances its portfolio solely from the deposits it receives and (as its manager says) it "exists on the fine margin of profits" which it makes because the cost of the borrowed funds i.e. the interest it pays to depositors, is generally below the yield on its portfolio i.e. the interest it receives from its investments. With the funds it receives, Short Deposit purchases Government securities, viz. Treasury Bills, holds them till maturity, but when necessary sells them off to get back funds, thus contributing a certain amount of flexibility as well as encouraging tradings in the market for outstanding Treasury Bills.

The rates of interest offered by Short Deposit on short-term deposits fluctuate according to the conditions in the market, mainly the availability of funds. When funds appear to be scarce, or when commercial banks and other depositors tend to reduce their

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[12] Fousek, op. cit., page 100.

deposits with Short Deposit, the discount house will have to offer better rates of interest to induce a greater supply of funds for its activities. On the other hand, when funds appear to be plentiful in supply, the rates offered will tend to decline. Whatever it is, it is best that the discount house covers its portfolio in its daily operation i.e. its deposits must not fall short of its investment; otherwise, Bank Negara may have to extend the "lender of last resort" facility to the Short Deposit.

How far the establishment of the discount house has assisted the development of the bill market till now is premature for one to conjecture. But one must not be prejudiced against its role just because it develops following the pattern of the British discount market. As a matter of fact it is following the Australian pattern as its leading personnel is an Australian himself.

Certainly Short Deposit is not undertaking a role comparable to that done by the London discount house simply because it is in its infancy stage. So far it has performed limited trading mainly because its operation has been confined to a small spread of Government securities and due to the lack of supply of funds being deposited with it, with which it can purchase larger amount of securities. It is not expected of Short Deposit, in the near future and for quite some time to come, to replace or take over the provision of rediscounting facilities currently managed by Bank Negara. But progress towards shifting the responsibility for providing the facility of rediscounting from Bank Negara to the discount house is inaugurally underway, with the ultimate aim that Bank Negara shall one day only offer rediscounting facilities, not as a normal course of its business, but rather as a rediscounter or lender of last resort in the true sense.

For the discount house to progress further, the official support of Bank Negara must always be given, especially the lender of last resort facility. Willingness to act as a lender of last resort to approved dealers, like Short Deposit, can do much to buttress the confidence of discount house operators whenever deposits tend to fall short of investment. Access to Central bank credit is essential to the smooth functioning of the discount house or any other dealers, as helpful parts of the money market.

The importance of a money market and the role of intermediaries to an economy are best summarised by Gifford: "The growth of the short-term money market is a feature of the trend in financial markets as a whole and the dealers play an important part in increasing the availability of revenue-earning kinds of short-term investment. Its presence has become important for monetary authorities also in that it absorbs a considerable proportion of the liquid funds in the economy, it extends the market for government securities and introduces greater flexibility into the market and as it is under the guidance of the Reserve Bank (Central Bank), it affects the particular form of central bank action in influencing the state of general liquidity in the economy."[13]

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[13] J.K. Gifford, Australian Banking, Queensland University Press, 1967, page 167.

CHAPTER VI

CONCLUSION - APPRAISAL AND RECOMMENDATION

As it stands today, the Treasury Bills market is far wider and more developed in contrast with what it was in 1959. The market for new issues has increased steeply; this is proven by the rapid increase in the amount of Treasury Bills issued and outstanding.

Prior to the formation of Bank Negara in 1959, the development in the market for new issues was slow and irregular. In 1945, the issue of Treasury Bills was statutorily instituted. From 1945 to 1959 when Bank Negara was formed, the total amount issued and outstanding seldom exceeded $100 million. After 1959 the amount issued and outstanding increased rapidly so that today, it is reaching the statutorily limited ceiling of $1,000 million. Thus it is the rapid increase in the amount issued since 1959 that significantly contributes to the overall expansion of the Treasury Bills market for new issues. The year 1959 can therefore be taken as a landmark in the development of the Treasury Bills market separating an unsure from a positive development of the market.

Likewise the market for outstanding Treasury Bills has also expanded since Bank Negara's operation began in 1959. The provision of adequate rediscounting facilities at Bank Negara was the prime factor underlying this development.

Bank Negara, in collaboration with the government played a significant role toward expanding the market for both new as well as outstanding issues. Since 1959, Bank Negara and the Government have pursued with various measures to promote the growth of the Treasury Bills market as was discussed in Chapter V.

It has also been seen that among the many investment institutions, commercial banks form the largest source of demand for Treasury Bills and this greatly contributes to the expansion of the market. Among the nonbank financial institutions, the Short Deposit the M.I.D.F.L. and several statutory bodies are significant in their demand for Treasury Bills. There is still a large potential market for Treasury Bills in the commercial banks and nonbank financial institutions judging from the increase in deposits they received.

Among the variety of Government securities outstanding, Treasury Bills are the most suitable as an instrument to develop a money market in Malaysia. It is significant to note that the steps so far taken to develop the Treasury Bills market have been successful only with respect to 91-day Treasury Bills. The other types of longer-term Treasury Bills i.e. the 182-day, 273-day and 364-day Treasury Bills however have not been actively traded. Similarly longer term Government securities have also not been actively traded. Until 1968, the only subscriber to the 364-day Treasury Bills was confined to the State Government and even then the amount of subscription was only norminal compared to the total issue. Furthermore, there is a tendency among buyers of longer term Treasury Bills to buy and then to hold the Treasury Bills to maturity instead of trading them in the market. Constructive steps need to be taken to encourage greater purchasing and trading in longer-term Treasury Bills. The differentiation in the rates of discount on different types of Treasury Bills in mid-1968 was a decisive step taken to correct this anomaly.

The 91-day Treasury Bills as basis of the money market has the important task of popularising the government securities among owners of funds in this country. Unutilised domestic capital funds offer important financial resources to finance the need for economic development by the nation. The disadvantage of borrowing from abroad has been discussed in Chapter I. Domestic borrowing can be increased only if appropriate steps are taken to harness the funds idling in the economy. Hitherto, the task of utilising the untapped capacity for investment of the private sector seems to be successful only with the 91-day Treasury Bills. However, proceeds from Treasury Bill issues can only be made available for current account purposes and are not meant for development purposes. As a result, there has in the past existed high unutilised Accountant-General balances at Bank Negara which stemmed from the proceeds of new Treasury Bills. The fact that new issues of Treasury Bills have been constantly taken up means that there are available funds in the economy. Thus since proceeds from Treasury Bills cannot be diverted for development purposes, why not encourage greater investment in other longer term Government securities where their proceeds can be channelled for longer-term projects.

It needs to be qualified here that the writer does not imply that encouragement to invest in longer-term Government securities should be at the expense of progress in the Treasury Bills market. Rather, the writer implies that the development of a short-term money market should proceed simultaneously with that of the capital market. While Treasury Bills can popularise short-term investments by the private sector, let their willingness to invest include or extend to the longer-term securities by providing incentives, besides just concentrating on the short-term Treasury Bills alone.

It seems that there are rooms for improving the attractiveness of the longer-term Government securities in order to attract more investors. Specifically, this can be done by raising the interest rates offered on long-term securities which hitherto, have remained unattractive relative to the Treasury Bills. Appendix I clearly reveals the unattractiveness of the interest rate structure for longer term securities.

From the table, it can be seen that since 1968, the interest rates on Treasury Bills were made to rise directly with their maturities; this improved their relative attractiveness. However, the two-year securities which had been discountinued for quite some time had only an interest rate of 5 per cent in 1965. It is an anomaly to see why in the same year, similar rate was also offered uniformly on all types of Treasury Bills. Thus, when a person could invest for three months and get a return of 5 per cent, why should he invest in a two-year security and yet get the same return, or in a seven-year security and get 5¼ per cent which was only a fraction above that on a 91-day Treasury Bill. Clearly, the willingness to undertake risk or to part with capital funds for a longer time was not well-rewarded. The result was that, besides the 91-day Treasury Bills, the other Government securities were not attractive as an investment outlet. Similarly, the interest rates on Three-year, Five-year and 16 - 20 year securities were not attractive compared with returns from Treasury Bills, even though their floatation was successful in 1968. Thus, it was relatively not worth his while for the owner of funds to invest in long-term securities.

The conclusion is drawn therefore that to encourage greater investment in longer-term securities, their interest rates should be made equally attractive to the investor in all range of Government securities from Treasury Bills to the 20 year securities. A raising of interest rates on longer-term securities is therefore suggested.

Turning the attention back to the Treasury Bills market, it has been seen that the market for new as well as outstanding Treasury Bills has continually been expanding. However, whether it is wide or narrow in terms of the volume of transactions in relation to the money market cannot precisely be determined mainly because few financial dealers are willing to release data on the amount of transactions they handle and secondly, because no comprehensive research and hence its data, has yet been made on the money market in Malaysia. The present market for Treasury Bills may still be small but it has been expanding rapidly over the past decade. This implies that the potential market for Treasury Bills is large as evidenced by the facts that, firstly, commercial and other nonbank financial institutions have in the past been receiving increasing amount of deposits from investors of which only a small portion goes to Treasury Bills purchases. Even then, these institutions invest in Treasury Bills only as a necessity to be in business (such as to satisfy the various banking requirements as laid down by Bank Negara). Finally, because few institutions[1] earnestly deal in Government Treasury Bills the present market for Treasury Bills as a part of the money market may still be small or narrow but is expanding rapidly.

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[1]Until today, Short Deposit Ltd. is the only institution that confines its activity to Treasury Bills and other short term Government securities.

Greater encouragement needs to be given and further steps be taken to foster trading in outstanding Treasury Bills. For the money market in general and the Treasury Bill market in particular to develop, the existing short-term funds in the economy must be stimulated into investment. The lack of incentive to invest must be overcome by continuing to provide the various facilities and incentives that have so far been undertaken.

For the time being, the tap system of new issues should be maintained in view of the infant nature of the market. An introduction of the tender system of issue at this young stage may be injurious to the functioning of the discount house which may not be able to compete with the commercial banks in trying to obtain adequate Treasury Bills portfolio. It is the aim of the government to establish a strong discount house and other dealers to handle the transactions of short_term funds in the market so that Bank Negara may ultimately do away with the normal provision of rediscounting facilities except as a lender of last resort. The assurance of a ready lending facility and a rediscounter of last resort should always be given to the discount house for it to be able to operate with confidence.

The provision of adequate amount of Treasury Bill papers must always be there. If there exists high unutilised balances which stems from the proceeds from Treasury Bills issue, then it has to be tolerated or other ways of utilising it should be found for the sake of development in the Treasury Bill market. Inadequate amount of Treasury Bill papers will only dampen its volume of transactions and hence the activity in the Treasury Bill market.

Finally, the interest rates on Treasury Bills should always be regulated with the financial conditions in the country, to make it always attractive to short term investors. Comparable international discount rates as shown in Appendix II, must also be taken into account to prevent any (undesired) unwanted outflow or inflow of funds.

The progress so far made in the Treasury Bills market has been encouraging, judging from the increasing volume of new Treasury Bills issued and the increased trading in outstanding Treasury Bills in the market. The potential market for Treasury Bills remain fairly large in view of the availability of short_term funds in the economy. Steps to promote the development of the Treasury Bills market especially the issue of long-term Treasury Bills, should not be slackened but rather should be accelerated. The narrowness of the present market is only because of its infant nature but the fact that, in the past, it has continually been expanding, shows that the Treasury Bills market may well prove its worth as the basis of the money market in the Malaysian economy.

APPENDIX I

INTEREST RATES ON GOVERNMENT SECURITIES

(Per cent per annum)

	Malaysian Treasury bill discount rate[1]				Central Government securities[2]				
	3 months	6 months	9 months	12 months	2 years	3 years	5 years	7 years	16-20 years
1961 Feb. 20	4	4	4	4	-	-	4¾	-	5½
Aug. 10	5	5	5	5	-	-	-	-	-
Sep. 25	5	5	5	5	-	-	-	-	5½
1962 Feb. 15	4½	4½	4½	4½	-	-	-	-	-
Apr. 16	4½	4½	4½	4½	-	-	5	-	5½
Aug. 30	4	4	4	4	-	-	-	-	-
Sep. 3	4	4	4	4	4½	-	5	-	5½
1963 Feb. 18	4	4	4	4	4½	-	5	-	5½
Jun. 17	4	4	4	4	-	-	-	-	5½
Dec. 16	4	4	4	4	4½	-	5	-	5½
1964 Mar. 24	4	4	4	4	-	-	-	-	5½
Aug. 12	4	4	4	4	4½	-	5	-	5½
Nov. 25	5	5	5	5	-	-	-	-	-
Dec. 2	5	5	5	5	-	-	-	-	6
1965 Mar. 15	5	5	5	5	5-	-	5¼	-	5¾
Jul. 14	5	5	5	5	-	-	-	-	5¾
Nov. 26	5	5	5	5	-	5⅛	-	-	5¾
1966 Apr. 18	5	5	5	5	-	-	5¼	-	5¾
Jul. 12	5	5	5	5	-	5⅛	-	-	5¾
Dec. 12	5	5	5	5	-	5⅛	-	-	5¾
1967 Mar. 27	5	5	5	5	-	-	5¼	-	5¾
Aug. 15	5	5	5	5	-	-	-	5¼	5¾
Nov. 20	5½	5½	5½	5½	-	-	-	-	-
Dec. 15	5½	5½	5½	5½	-	-	6	-	6¼
1968 Mar. 15	5½	5½	5½	5½	-	-	6	-	6¼
Jun. 10	4½	4½	4½	5½	-	-	-	-	-
Aug. 1	4	4½	5	5½	-	-	-	-	-
Aug. 12	4	4½	5	5½	-	5¾	6	-	6¼

1 Dates refer to dates of change.
2 Dates refer to dates of issue.

Source: Bank Negara Quarterly Economic Bulletin, Vol. 1, No. 2, June 1968.

APPENDIX II

DISCOUNT RATES OF SELECTED COUNTRIES

Country	Rate on June 30, 1968		Previous rate		Rate on Dec. 31 (%p.a.)		
	% p.a.	Applicable from	%p.a.	Applicable from	1967	1966	1965
Australia[1]	4.42	Mar. 1968	4.50	Nov. 1967	4.50	4.26	4.25
Belgium	3.75	Mar. 7, '68	4.00	Oct.26, '67	4.00	5.25	4.75
Canada	7.50	Mar. 15, '68	7.00	Jan.22, '68	6.00	5.25	4.75
Ceylon	5.50	May 6, '68	5.00	May 28, '65	5.00	5.00	5.00
Denmark	6.50	June 13, '68	7.00	Mar.19, '68	7.50	6.50	6.50
Federal Republic of Germany	3.00	May 12, '67	3.50	Apr.14, '67	3.00	5.00	4.00
France	3.50	Apr. 8, '65	4.00	Nov.14, '63	3.50	3.50	3.50
Hongkong[2]	4.875	Jun. 27, '68	4.75	Jun.13, '68	5.00	6.00	5-5.125
India	5.00	Mar. 2, '68	6.00	Sep.26, '64	6.00	6.00	6.00
Italy	3.50	Jun. 7, '58	4.00	Apr. 6, '50	3.50	3.50	3.50
Japan	6.21	Jan. 6, '68	5.84	Sep.1, '67	5.84	5.475	5.475
Netherlands	4.50	Mar. 15, '67	5.00	May 2, '66	4.50	5.00	4.50
Pakistan	5.00	Jun. 15, '65	4.00	Jan.14, '59	5.00	5.00	5.00
Philippines	7.50	Feb. 28, '68	6.00	Jun.26, '67	6.00	4.75	6.00
Singapore[3]	4.00	May 23, '68	4.50	May 22, '68	7.00	5.00	5.00
Sweden	5.50	Feb. 9, '68	6.00	Dec.15, '67	6.00	6.00	5.50
Switzerland	3.00	Jul. 8, '67	3.50	Jul. 6, '66	3.00	3.50	2.50
Thailand	5.00	Oct. 1959	7.00	Feb.23, '45	5.00	5.00	5.00
United Kingdom	7.50	Mar. 21, '68	8.00	Nov.18, '67	8.00	7.00	6.00
United States	5.50	Apr. 19, '68	5.00	Mar.15, '68	4.50	4.50	4.50
Malaysia[4]	4.50	Jun. 10, '68	5.50	Nov.20, '67	5.50	5.00	5.00

1 Australian Treasury note yield (13 weeks).
2 Call market inter-bank rate.
3 Singapore Treasury bill discount rate.
4 Malaysian Treasury bill discount rate (91 days).

Source: Bank Negara Quarterly Economic Bulletin, Vol.1, No.2, June 1968.

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